

Appendix P

Wet Weather Final Bacteria Load Duration Curves

Table P-1. Fecal coliform load duration curve and TMDL results for subwatershed 101

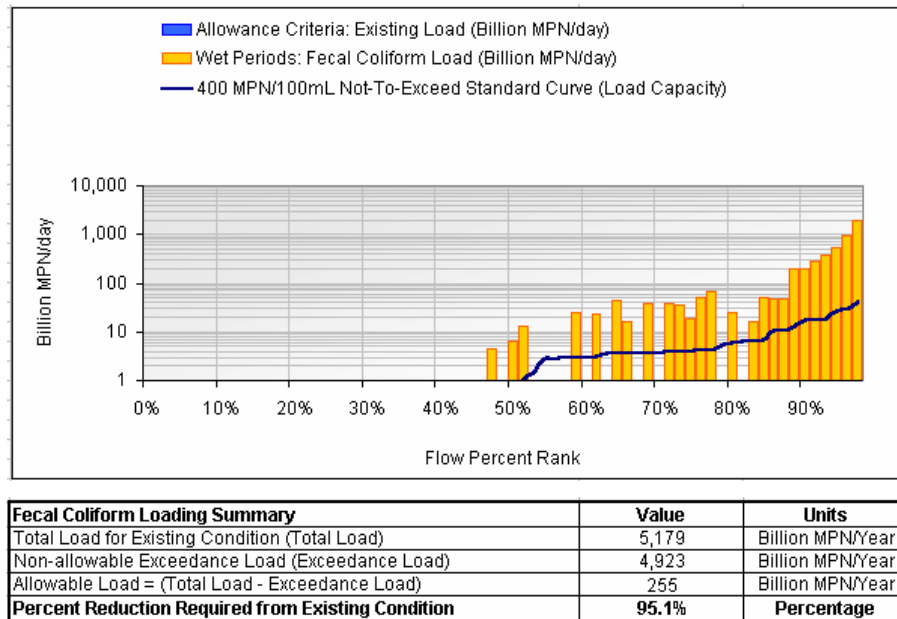


Table P-2. Total coliform load duration curve and TMDL results for subwatershed 101

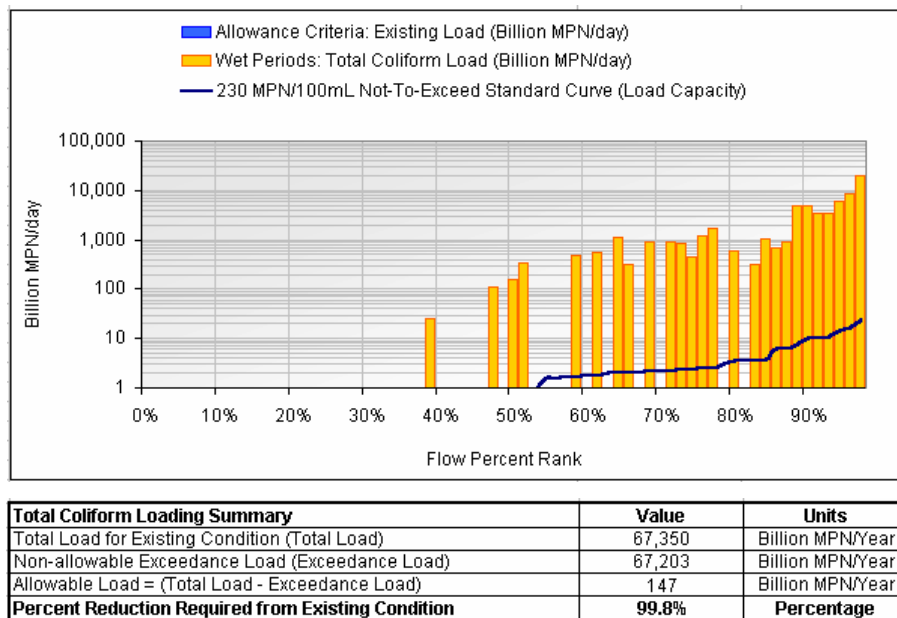


Table P-3. *Enterococcus* load duration curve and TMDL results for subwatershed 101

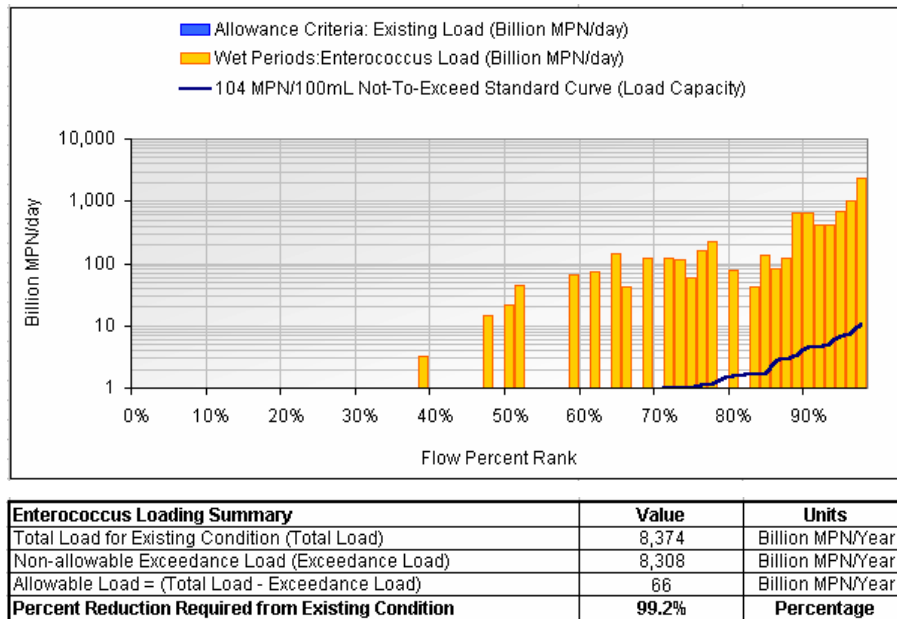


Table P-4. *Fecal coliform* load duration curve and TMDL results for subwatershed 103

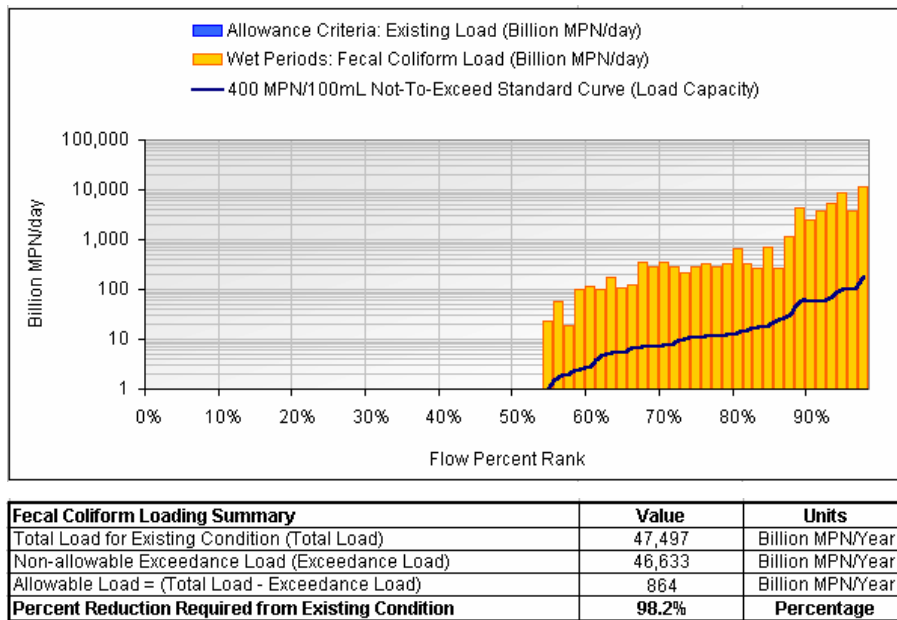


Table P-5. Total coliform load duration curve and TMDL results for subwatershed 103

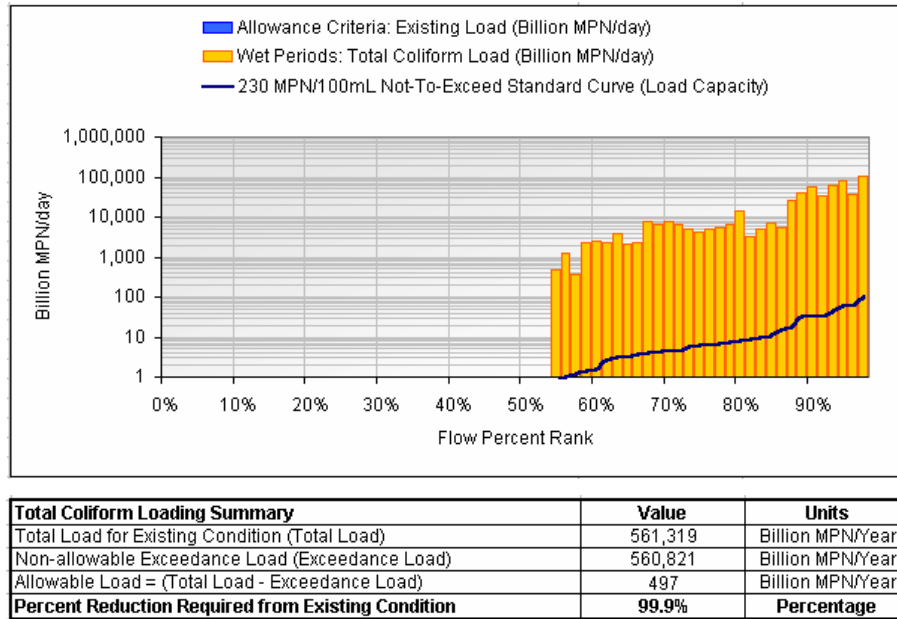


Table P-6. Enterococcus load duration curve and TMDL results for subwatershed 103

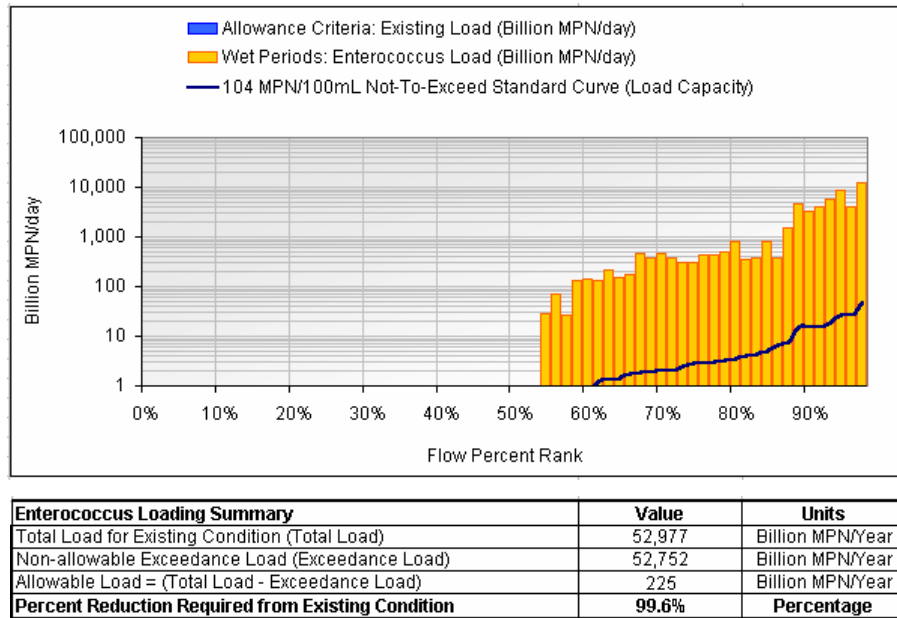


Table P-7. Fecal coliform load duration curve and TMDL results for subwatershed 104

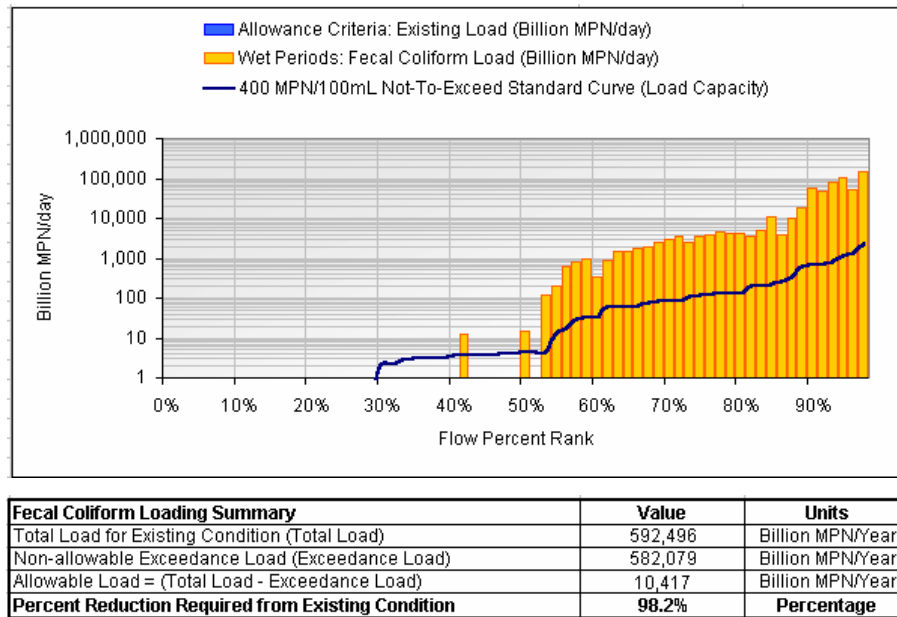


Table P-8. Total coliform load duration curve and TMDL results for subwatershed 104

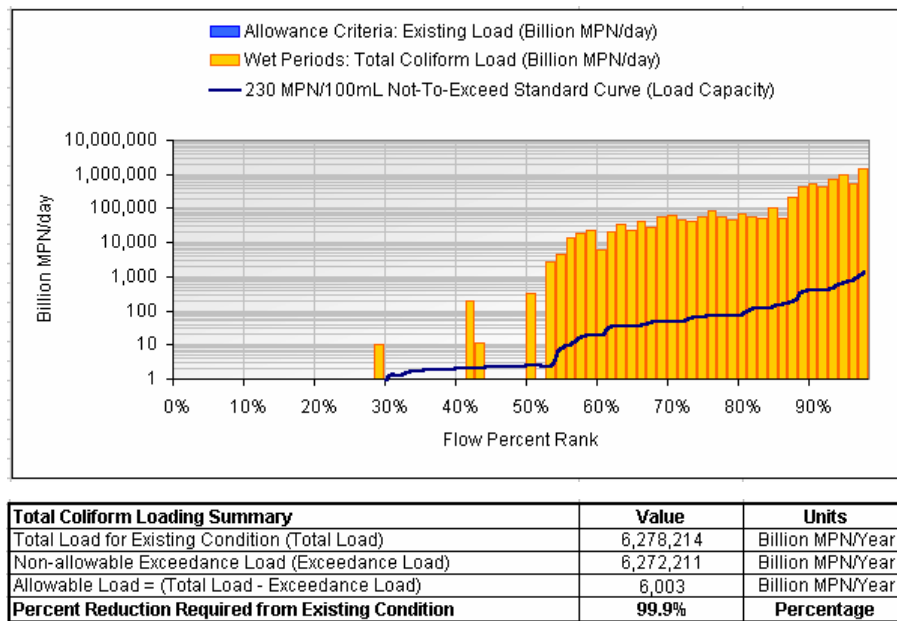
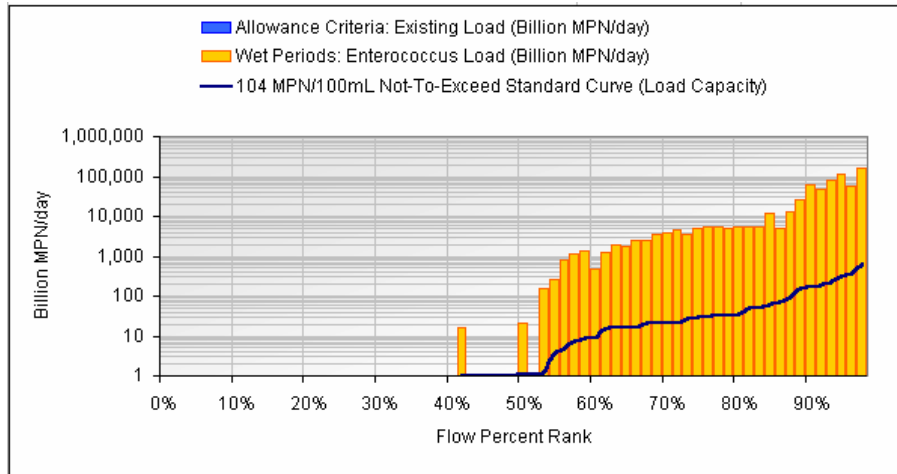
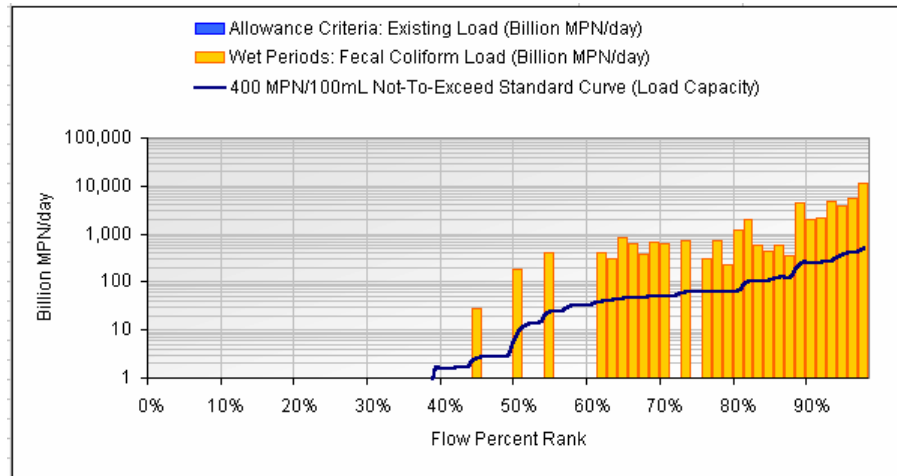


Table P-9. *Enterococcus* load duration curve and TMDL results for subwatershed 104



| Enterococcus Loading Summary | Value | Units |
|--|---------|------------------|
| Total Load for Existing Condition (Total Load) | 650,651 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 647,939 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 2,712 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.6% | Percentage |

Table P-10. *Fecal coliform* load duration curve and TMDL results for subwatershed 105



| Fecal Coliform Loading Summary | Value | Units |
|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | 47,842 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 44,154 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 3,688 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 92.3% | Percentage |

Table P-11. Total coliform load duration curve and TMDL results for subwatershed 105

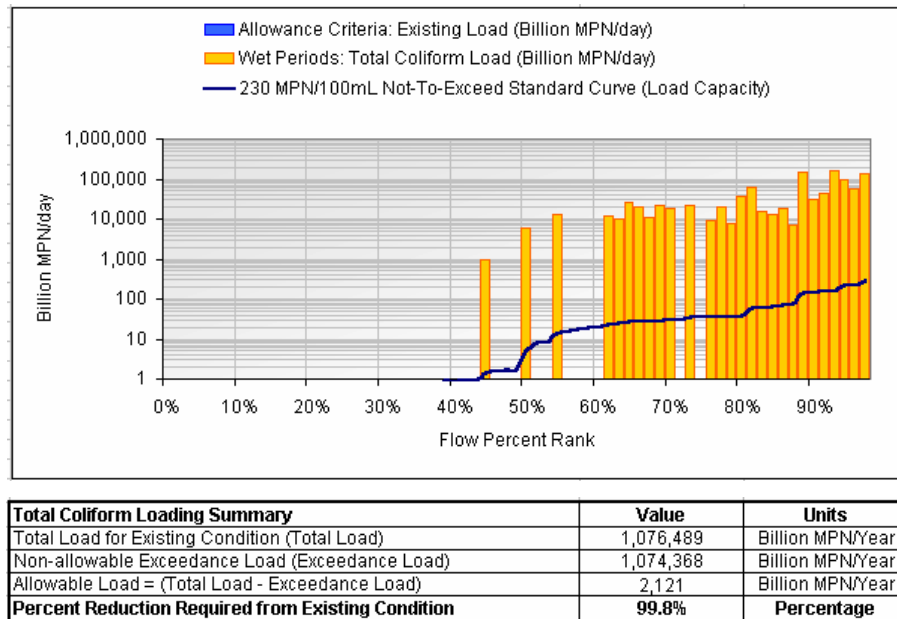


Table P-12. Enterococcus load duration curve and TMDL results for subwatershed 105

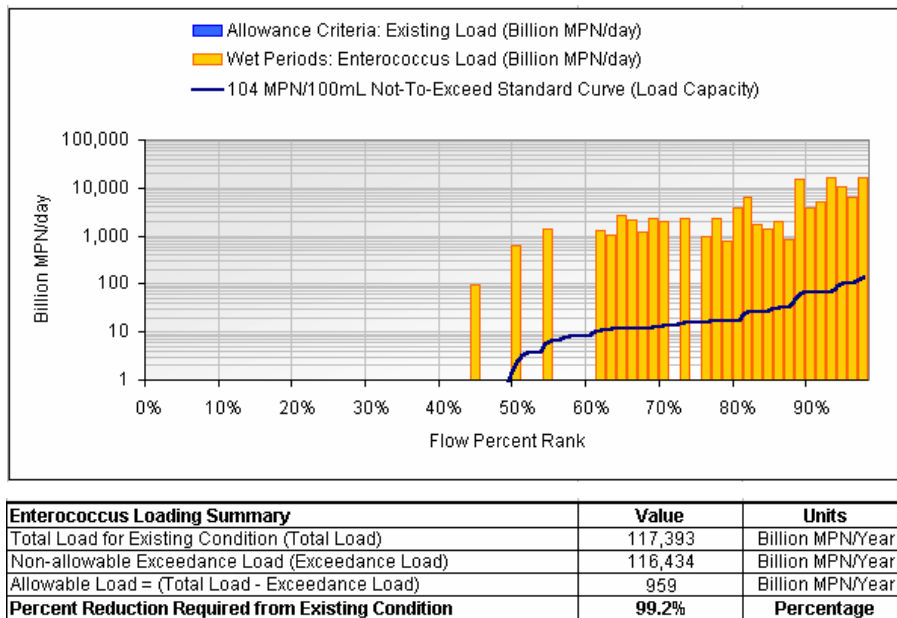


Table P-13. Fecal coliform load duration curve and TMDL results for subwatershed 106

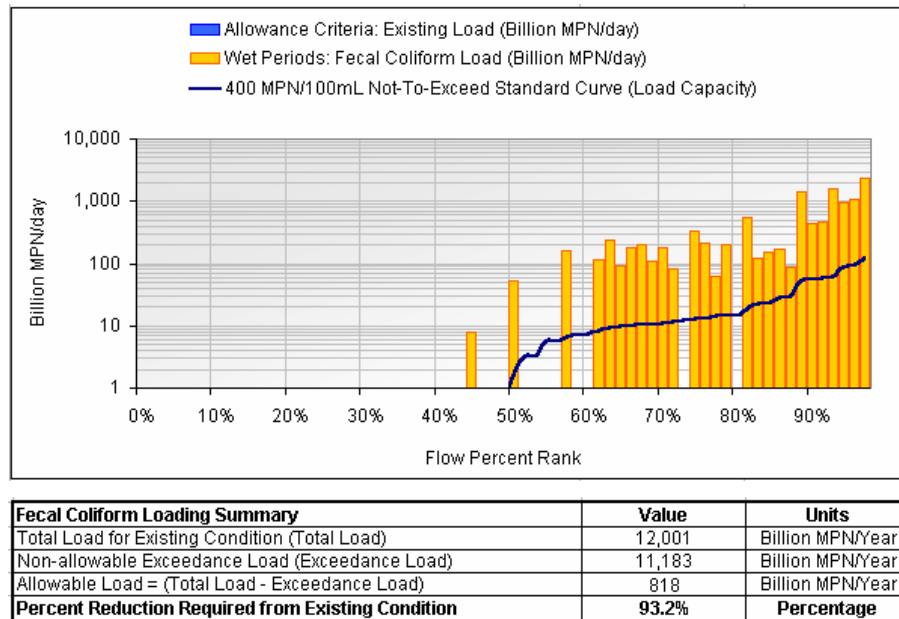


Table P-14. Total coliform load duration curve and TMDL results for subwatershed 106

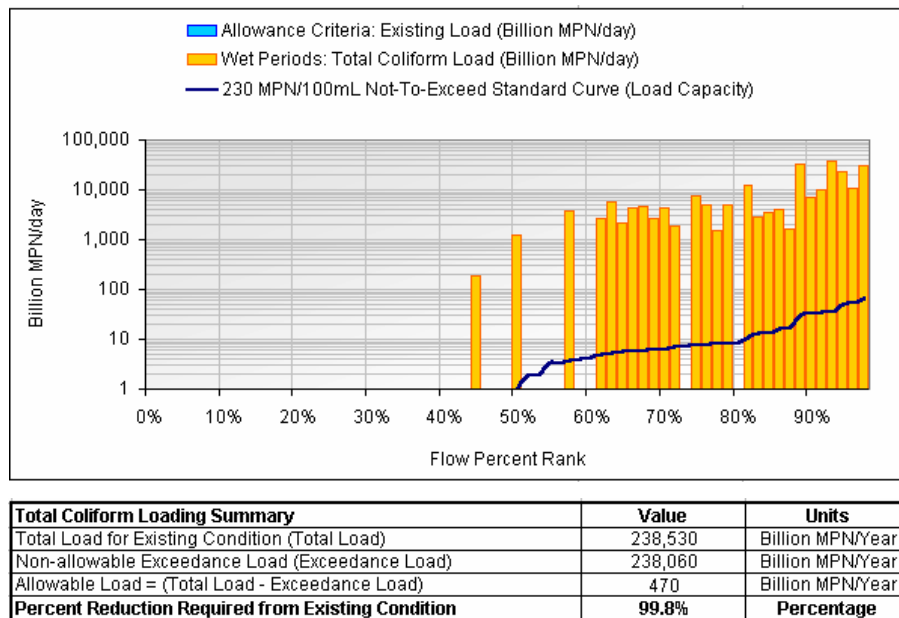
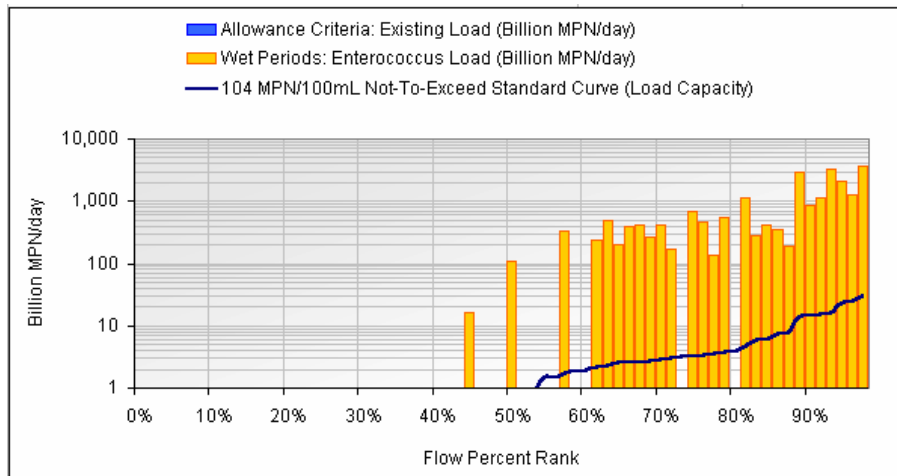
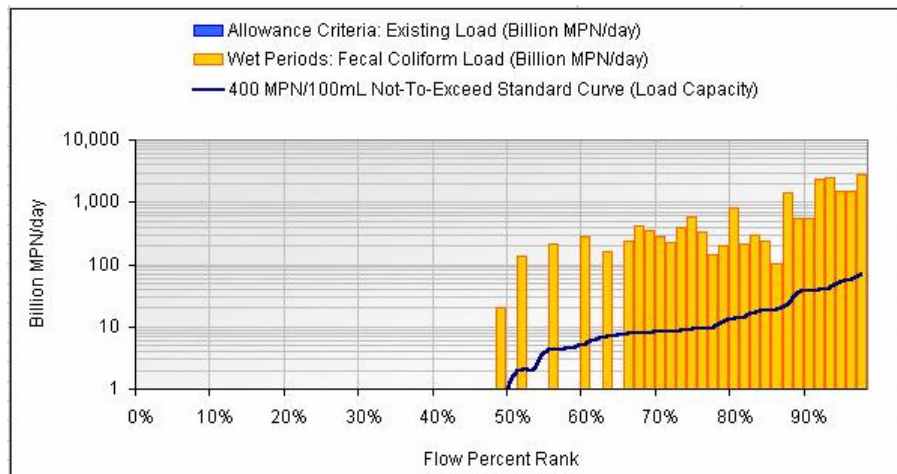


Table P-15. *Enterococcus* load duration curve and TMDL results for subwatershed 106



| Enterococcus Loading Summary | Value | Units |
|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | 23,254 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 23,041 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 213 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.1% | Percentage |

Table P-16. *Fecal coliform* load duration curve and TMDL results for subwatershed 201



| Fecal Coliform Loading Summary | Value | Units |
|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | 19,386 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 18,823 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 563 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 97.1% | Percentage |

Table P-17. Total coliform load duration curve and TMDL results for subwatershed 201

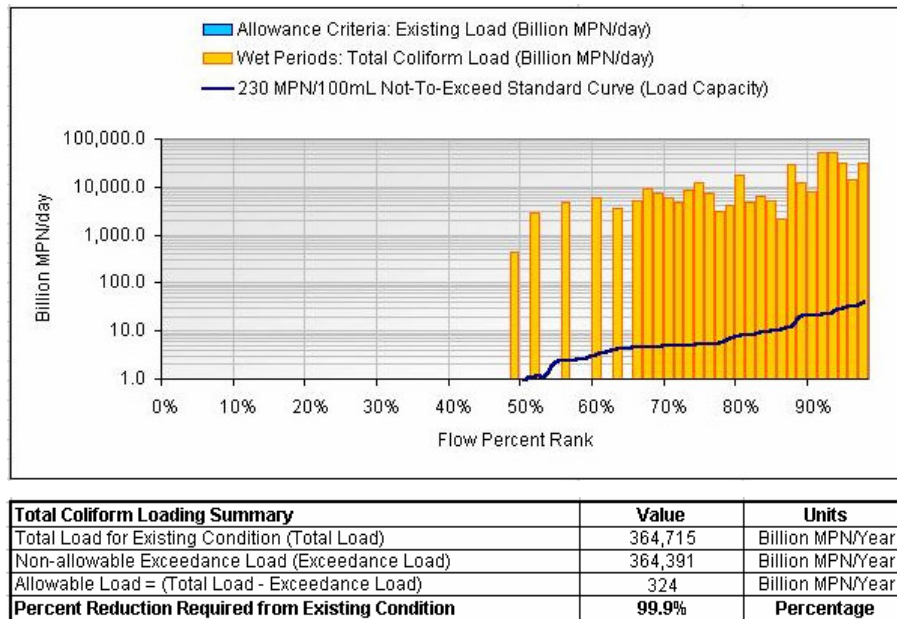


Table P-18. Enterococcus load duration curve and TMDL results for subwatershed 201

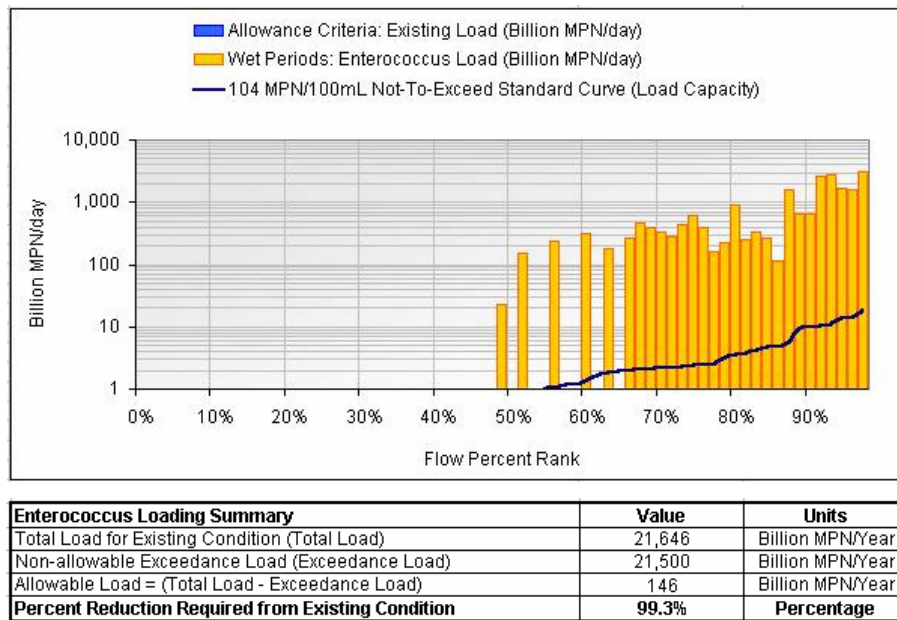


Table P-19. Fecal coliform load duration curve and TMDL results for subwatershed 202

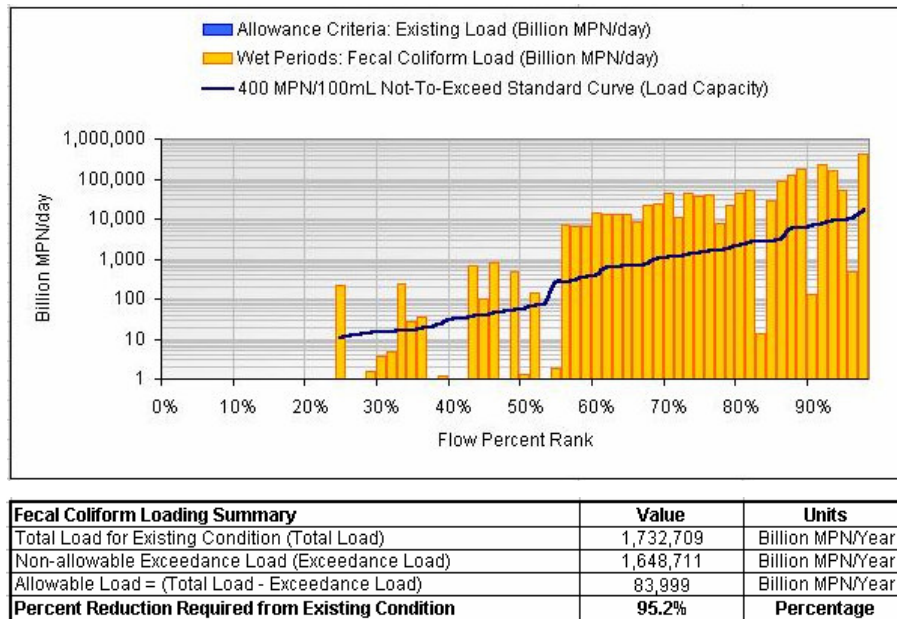


Table P-20. Total coliform load duration curve and TMDL results for subwatershed 202

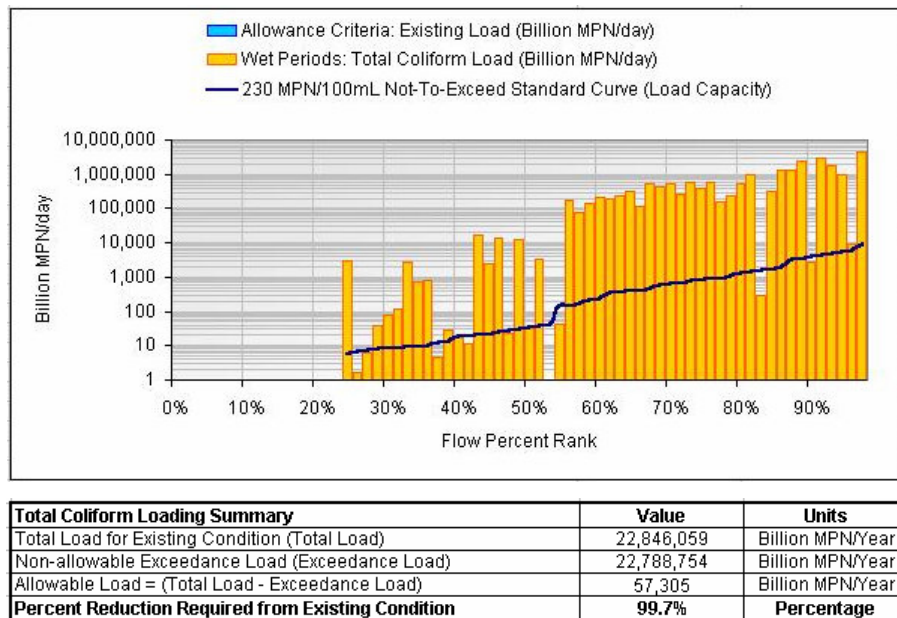


Table P-21. *Enterococcus* load duration curve and TMDL results for subwatershed 202

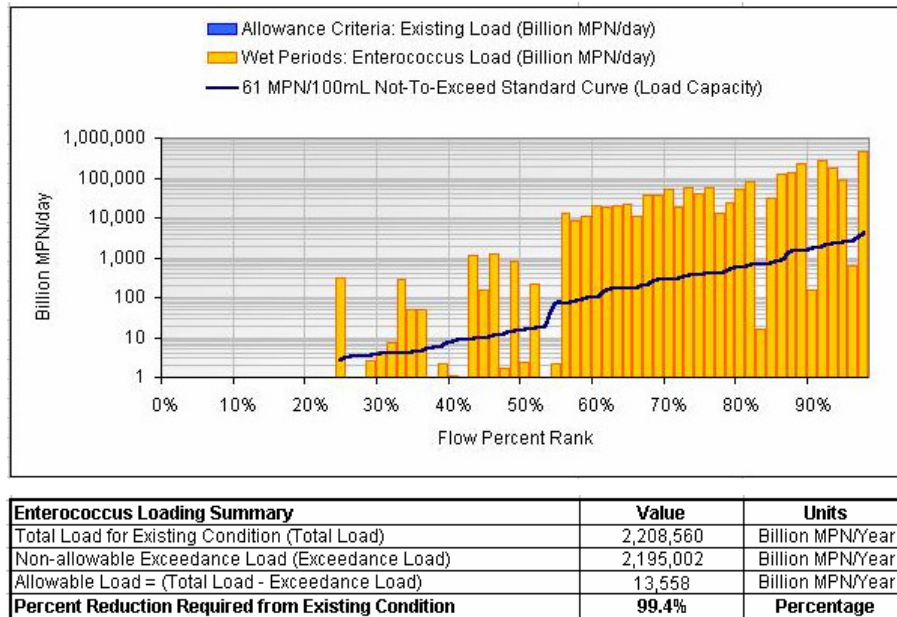


Table P-22. *Fecal coliform* load duration curve and TMDL results for subwatershed 301

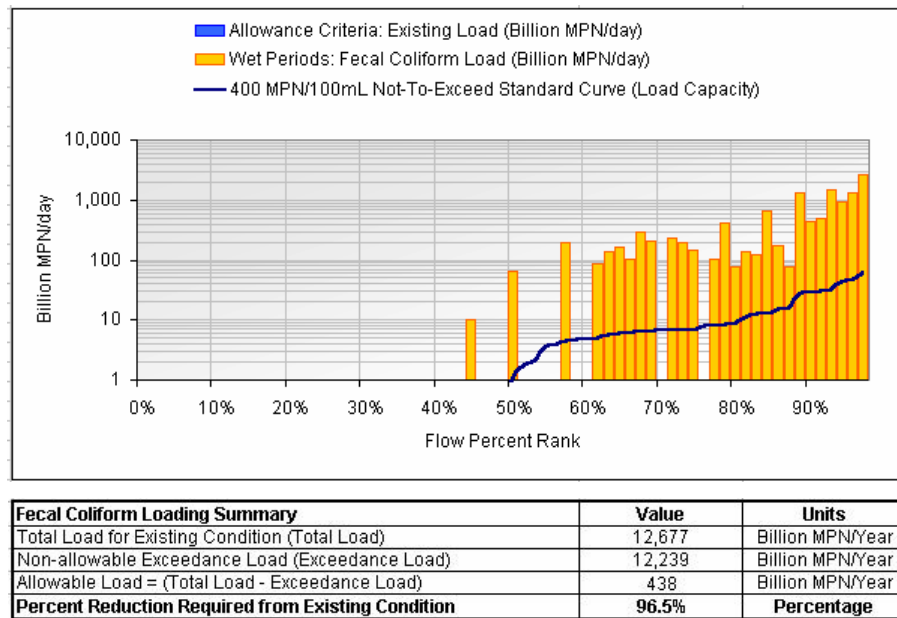
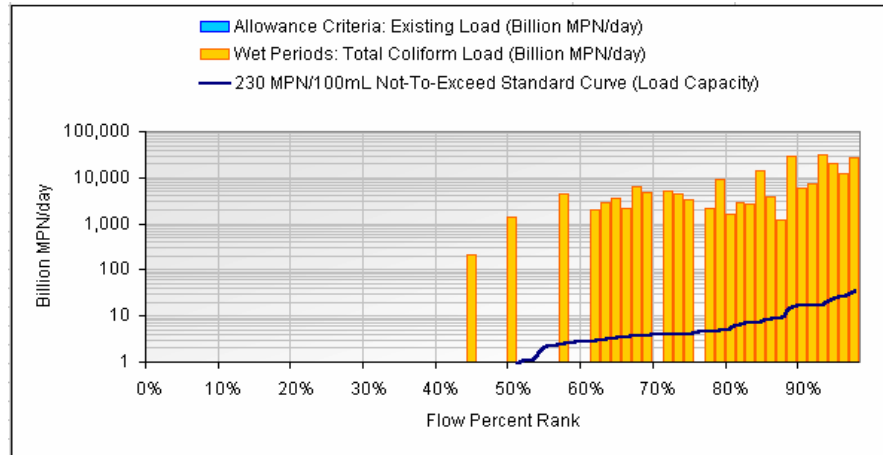
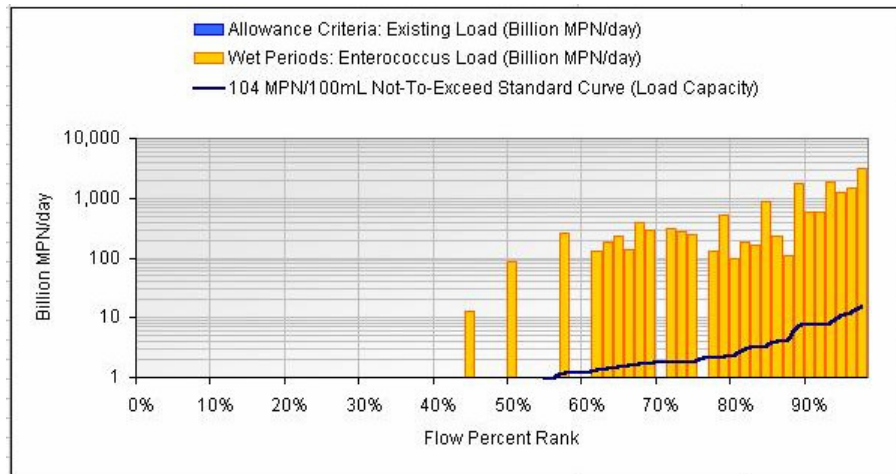


Table P-23. Total coliform load duration curve and TMDL results for subwatershed 301



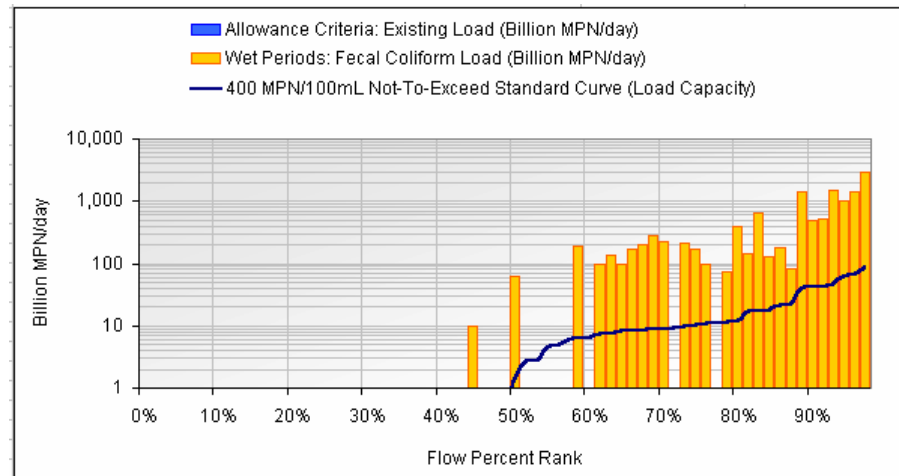
| Total Coliform Loading Summary | | Value | Units |
|--|--|---------|------------------|
| Total Load for Existing Condition (Total Load) | | 224,286 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | | 224,034 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | | 252 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | | 99.9% | Percentage |

Table P-24. Enterococcus load duration curve and TMDL results for subwatershed 301



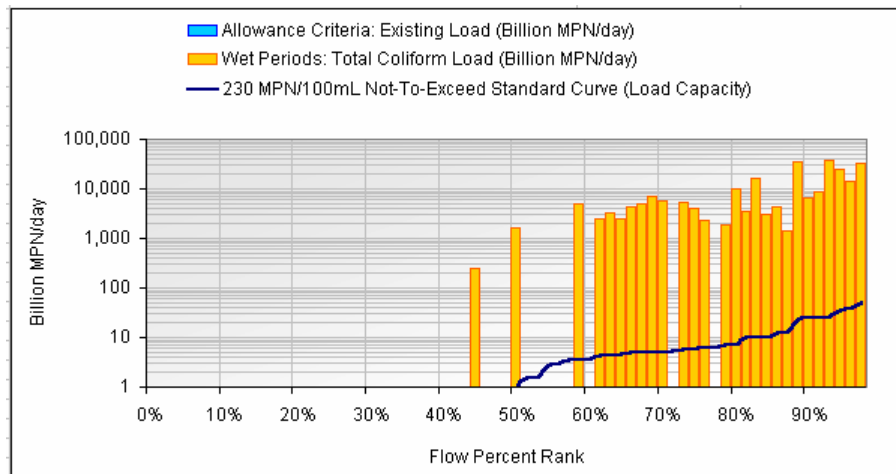
| Enterococcus Loading Summary | | Value | Units |
|--|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | | 16,137 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | | 16,024 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | | 114 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | | 99.3% | Percentage |

Table P-25. Fecal coliform load duration curve and TMDL results for subwatershed 302



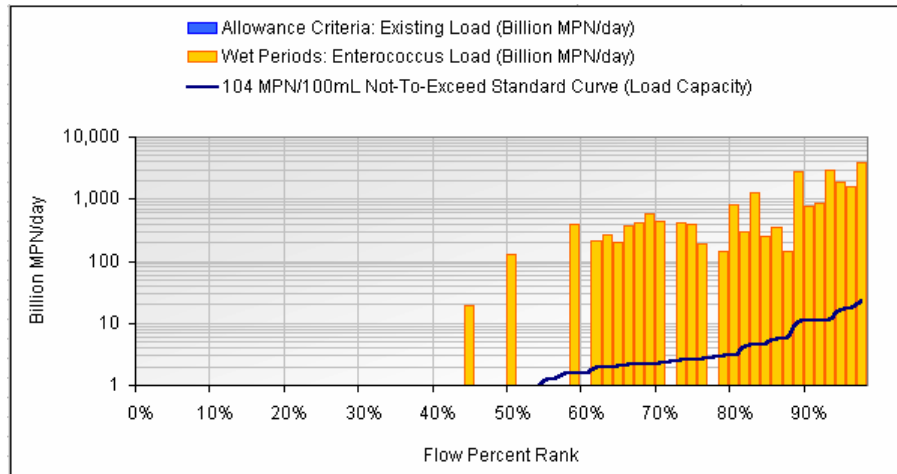
| Fecal Coliform Loading Summary | Value | Units |
|---|--------------|-------------------|
| Total Load for Existing Condition (Total Load) | 13,426 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 12,803 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 623 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 95.4% | Percentage |

Table P-26. Total coliform load duration curve and TMDL results for subwatershed 302



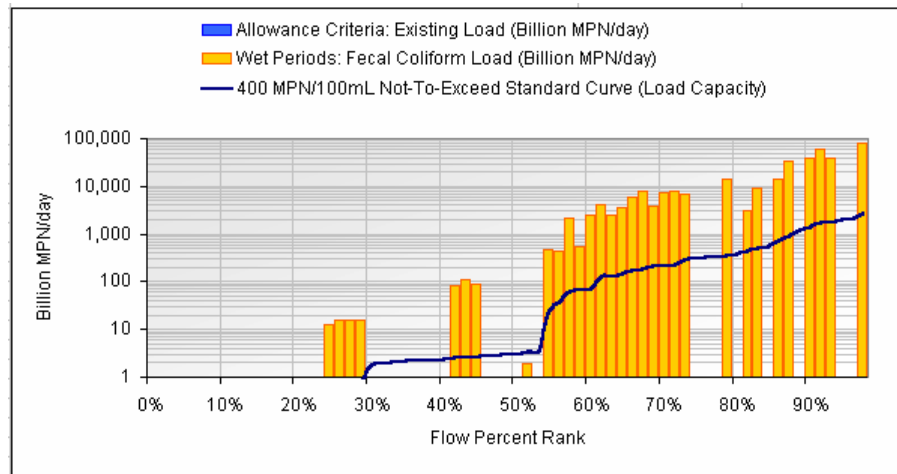
| Total Coliform Loading Summary | Value | Units |
|---|--------------|-------------------|
| Total Load for Existing Condition (Total Load) | 261,979 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 261,621 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 358 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.9% | Percentage |

Table P-27. *Enterococcus* load duration curve and TMDL results for subwatershed 302



| Enterococcus Loading Summary | Value | Units |
|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | 22,871 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 22,709 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 162 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.3% | Percentage |

Table P-28. *Fecal coliform* load duration curve and TMDL results for subwatershed 304



| Fecal Coliform Loading Summary | Value | Units |
|--|---------|------------------|
| Total Load for Existing Condition (Total Load) | 356,926 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 344,269 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 12,657 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 96.5% | Percentage |

Table P-29. Total coliform load duration curve and TMDL results for subwatershed 304

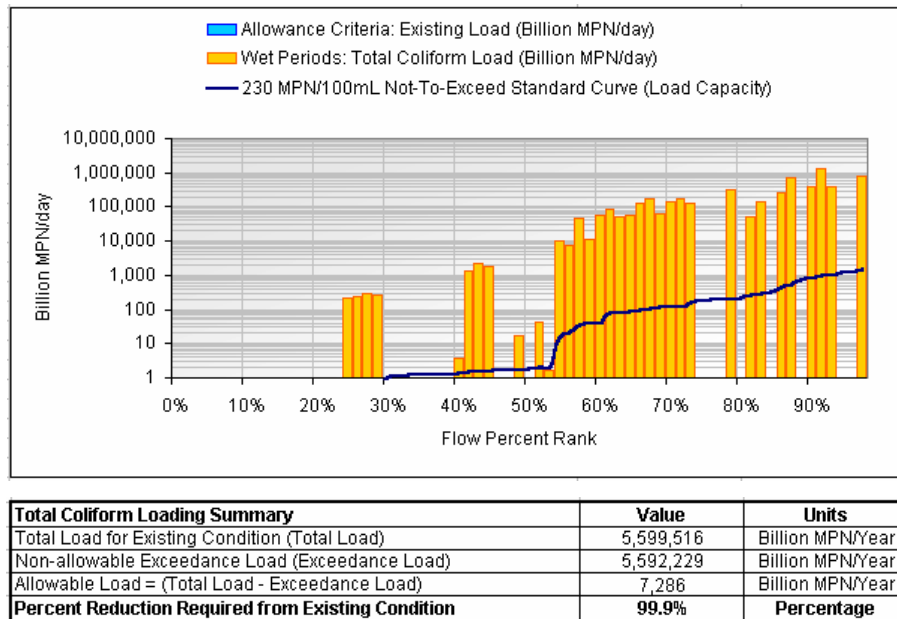


Table P-30. Enterococcus load duration curve and TMDL results for subwatershed 304

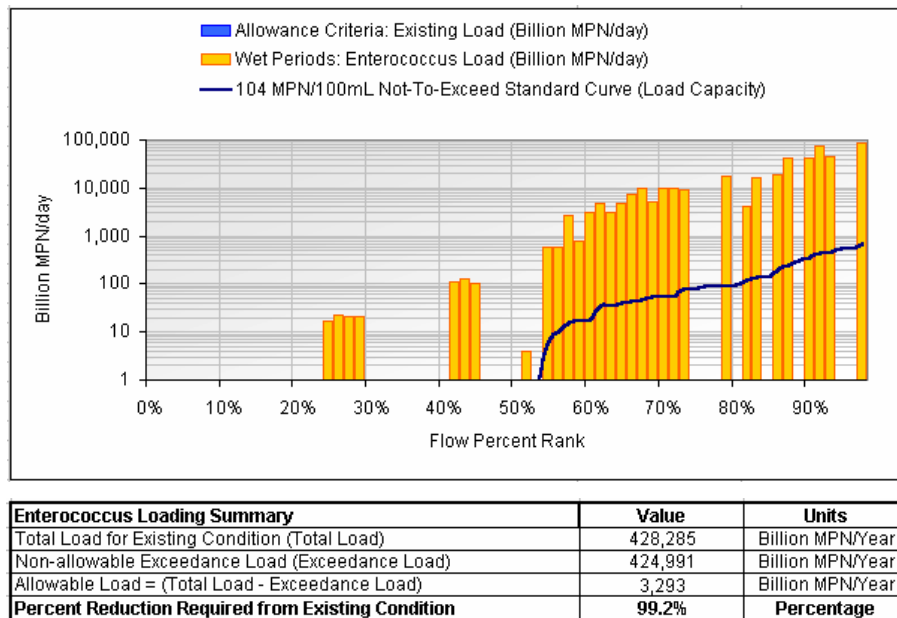


Table P-31. Fecal coliform load duration curve and TMDL results for subwatershed 305

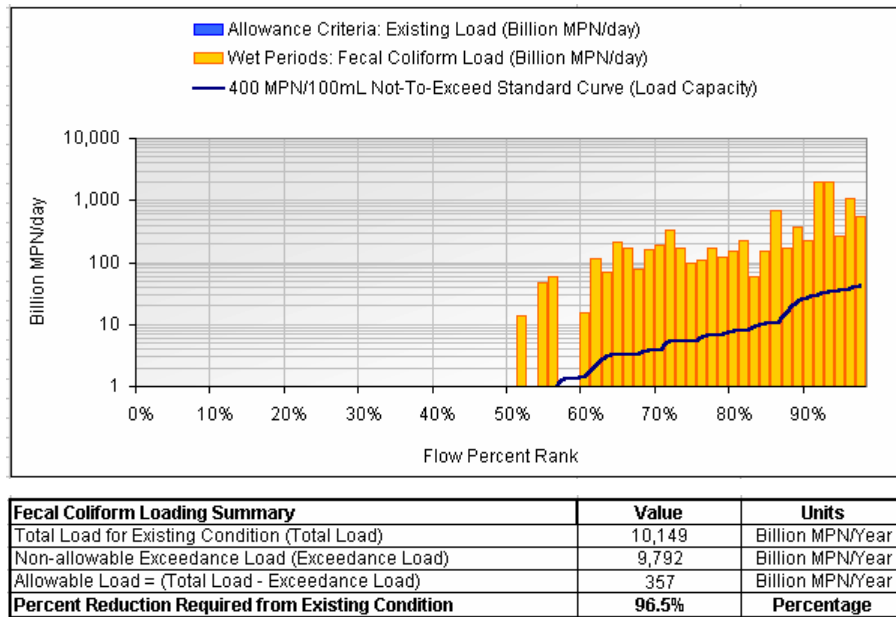


Table P-32. Total coliform load duration curve and TMDL results for subwatershed 305

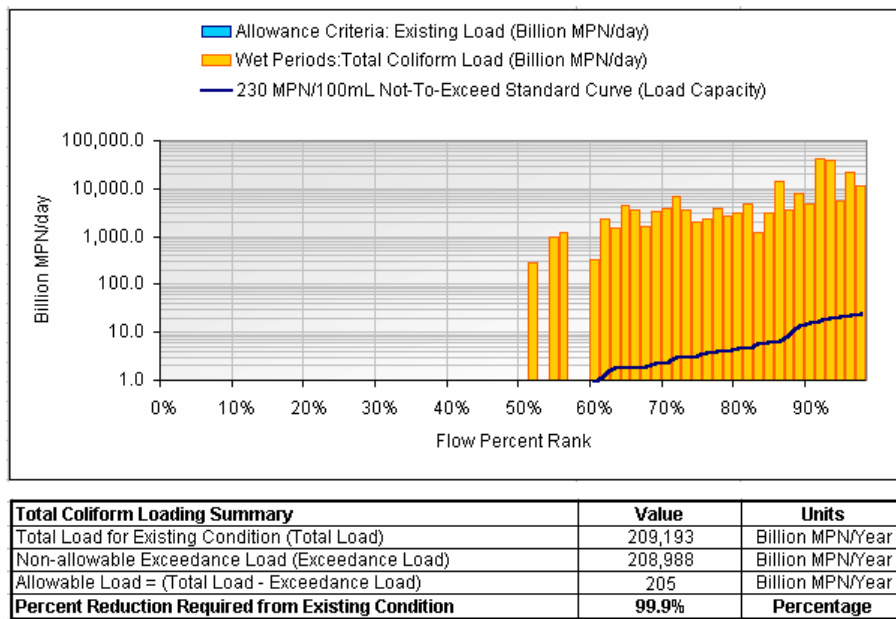


Table P-33. *Enterococcus* load duration curve and TMDL results for subwatershed 305

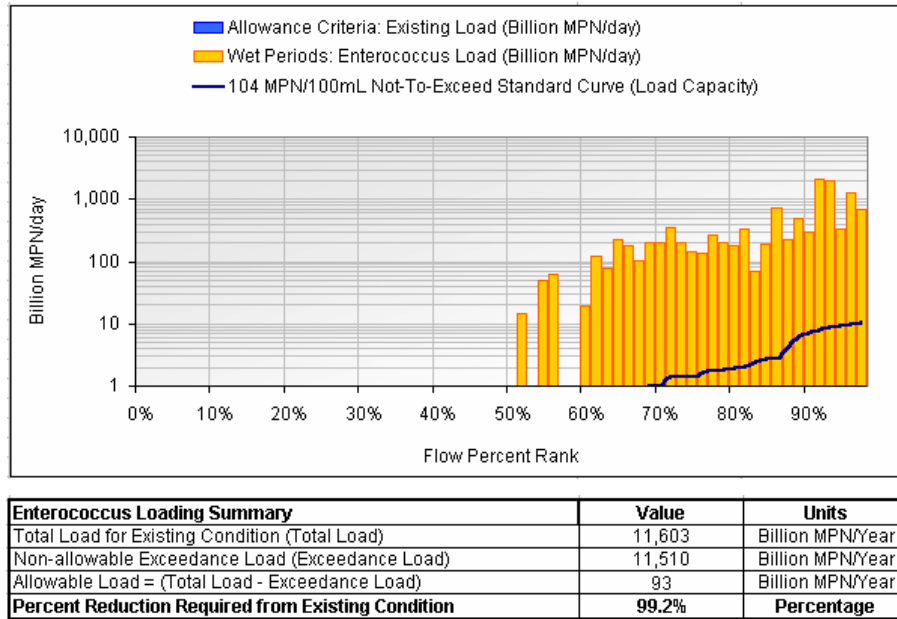


Table P-34. *Fecal coliform* load duration curve and TMDL results for subwatershed 306

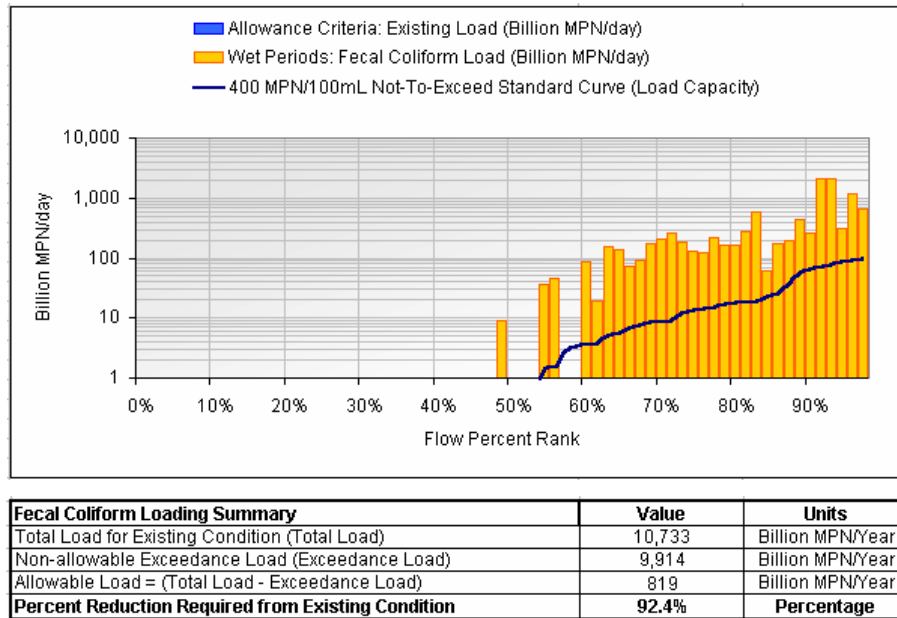


Table P-35. Total coliform load duration curve and TMDL results for subwatershed 306

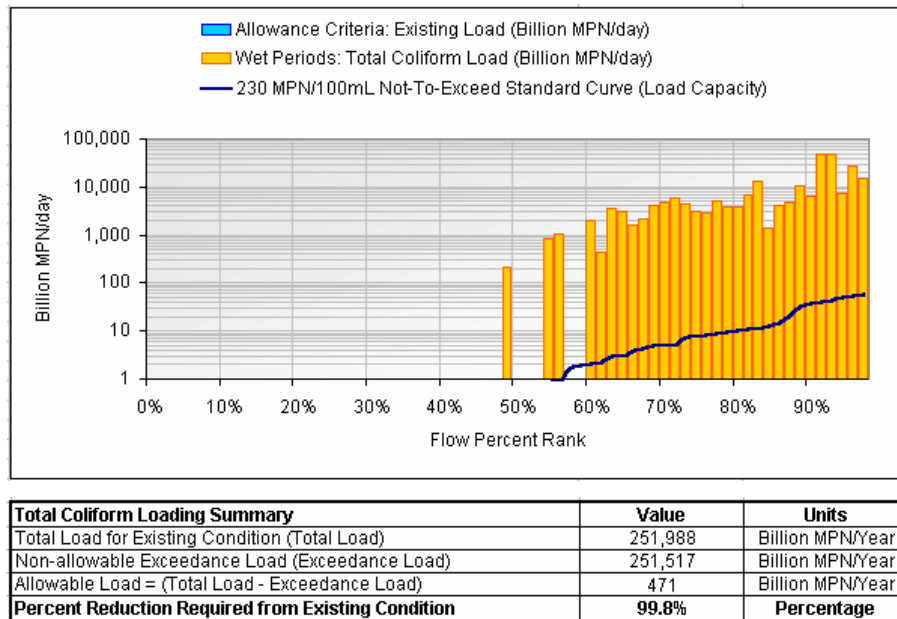


Table P-36. Enterococcus load duration curve and TMDL results for subwatershed 306

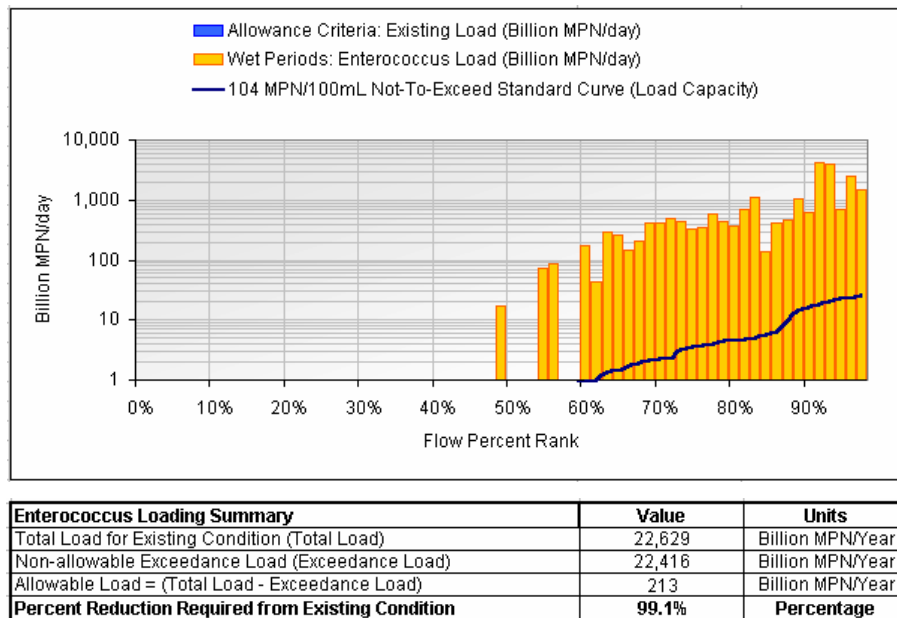


Table P-37. Fecal coliform load duration curve and TMDL results for subwatershed 401

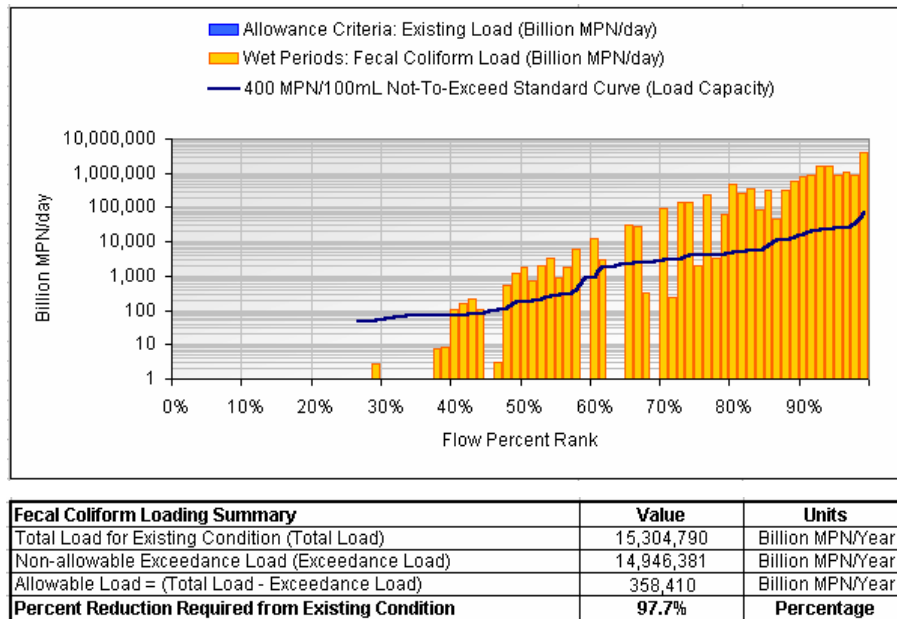


Table P-38. Total coliform load duration curve and TMDL results for subwatershed 401

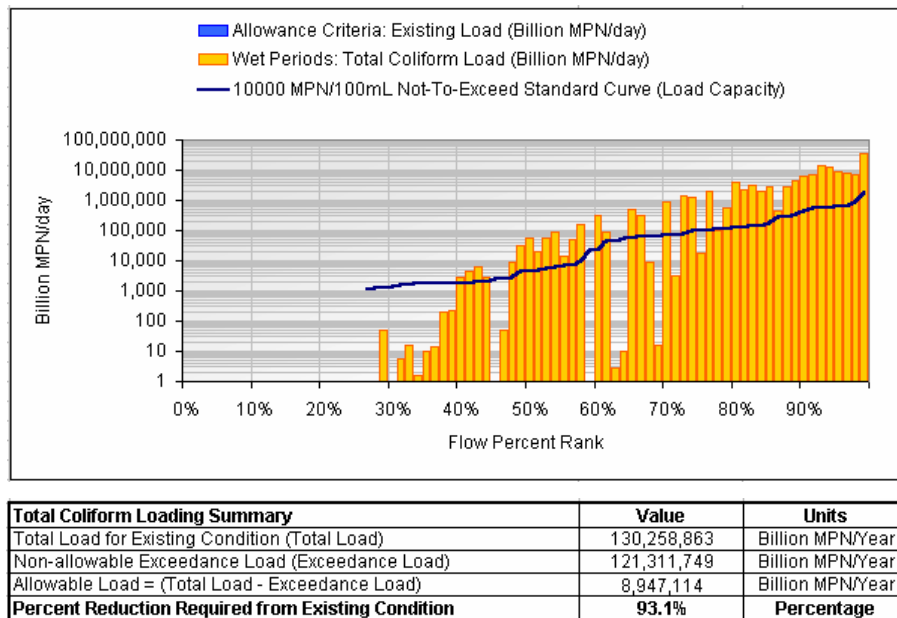


Table P-39. *Enterococcus* load duration curve and TMDL results for subwatershed 401

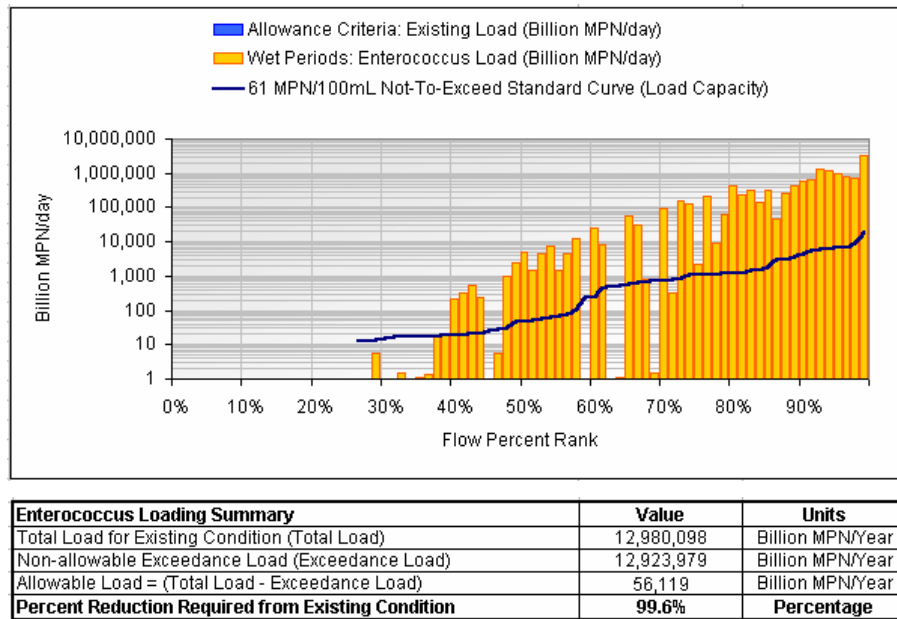


Table P-40. *Fecal coliform* load duration curve and TMDL results for subwatershed 501

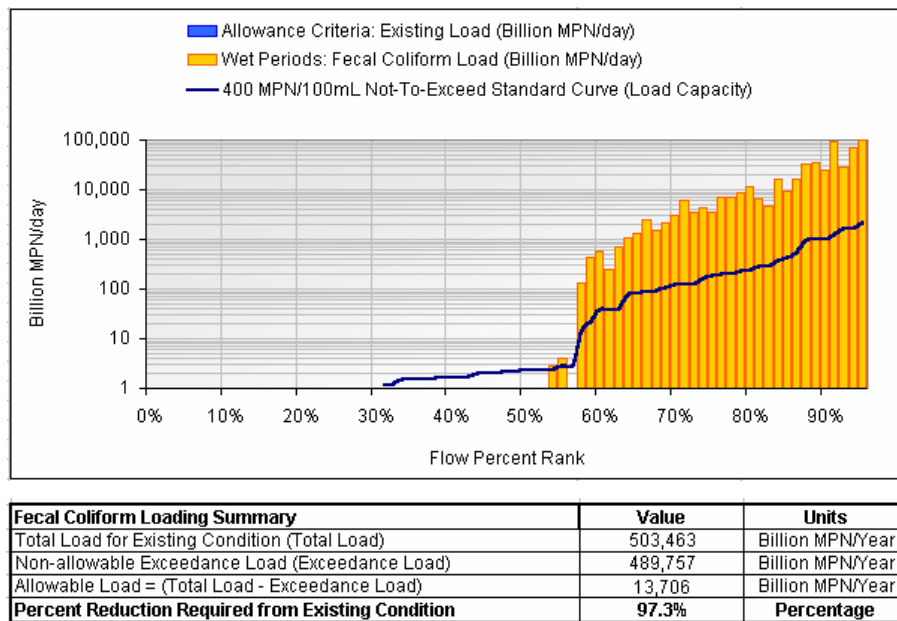


Table P-41. Total coliform load duration curve and TMDL results for subwatershed 501

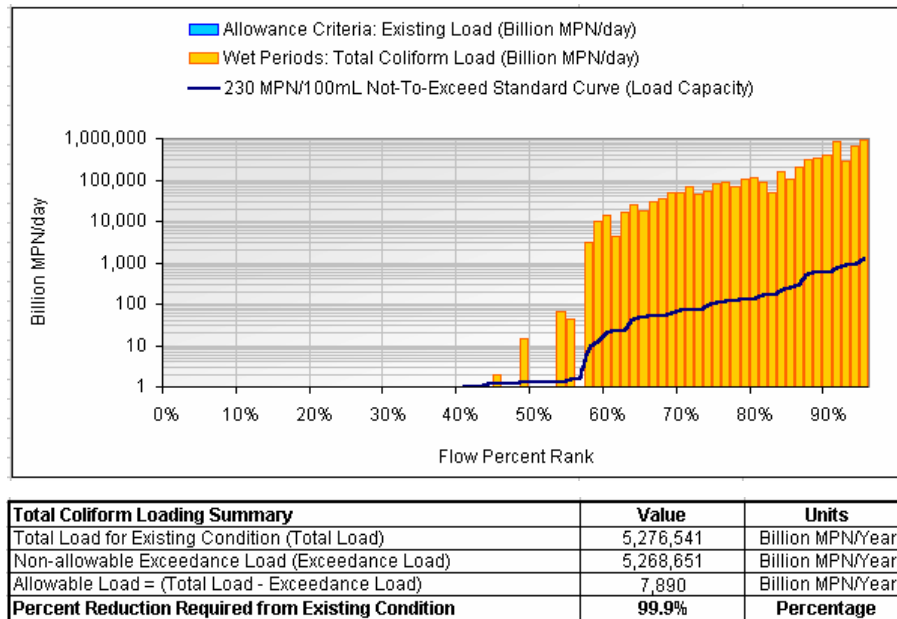


Table P-42. Enterococcus load duration curve and TMDL results for subwatershed 501

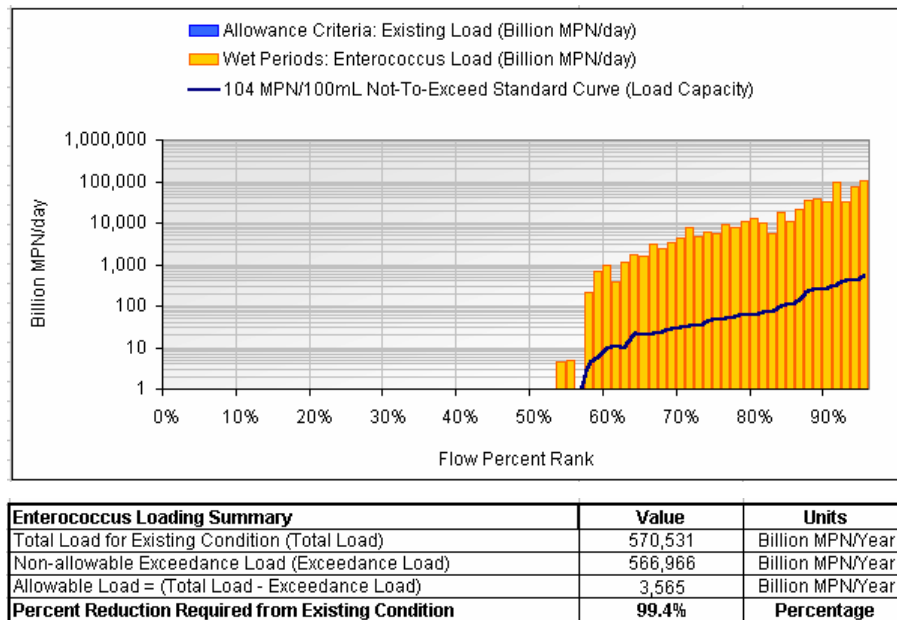


Table P-43. Fecal coliform load duration curve and TMDL results for subwatershed 502

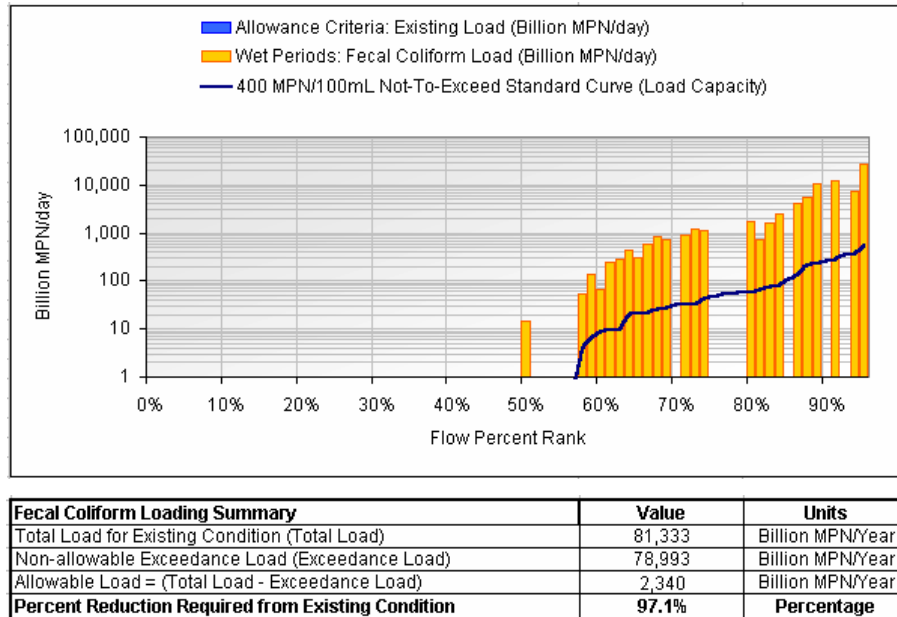


Table P-44. Total coliform load duration curve and TMDL results for subwatershed 502

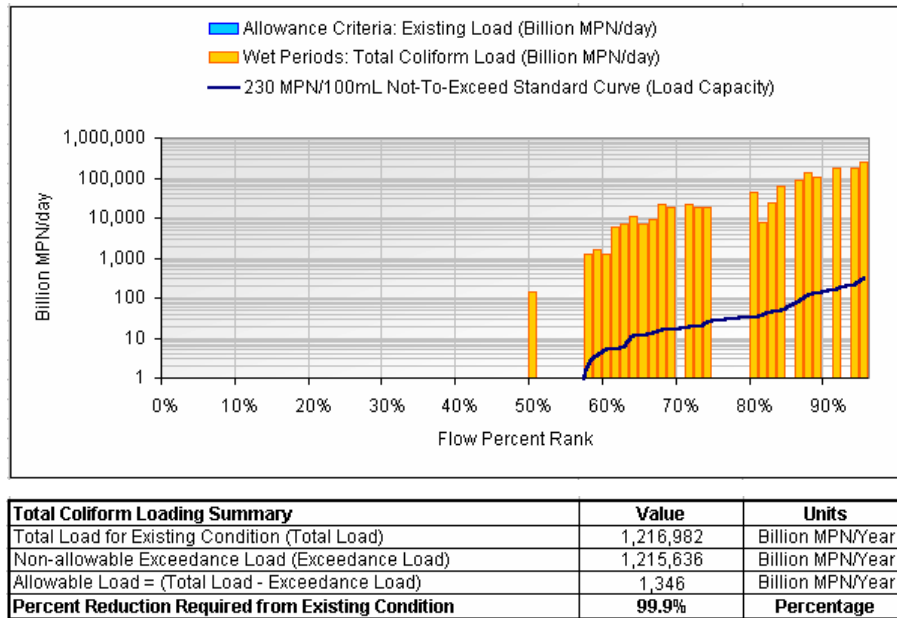


Table P-45. *Enterococcus* load duration curve and TMDL results for subwatershed 502

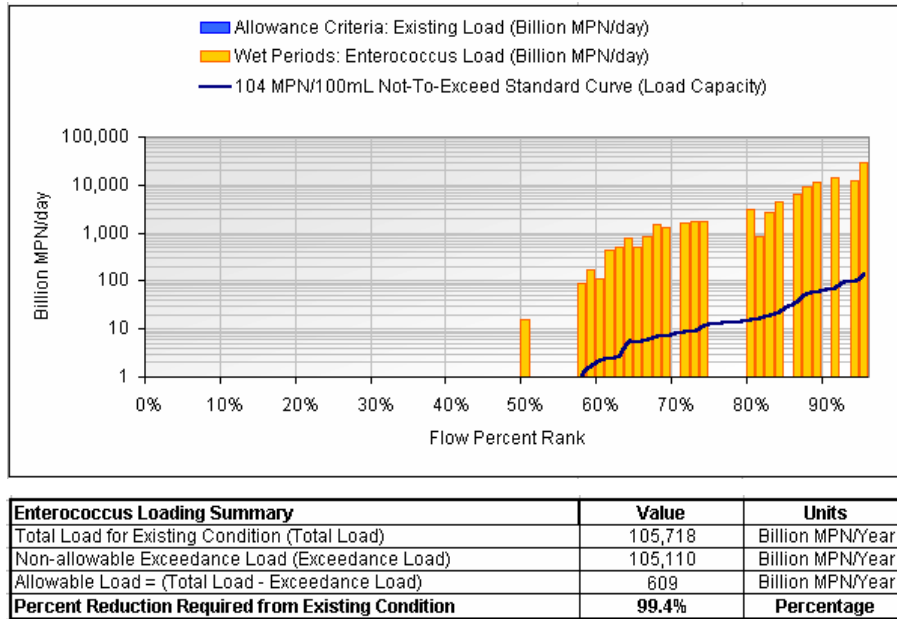


Table P-46. *Fecal coliform* load duration curve and TMDL results for subwatershed 503

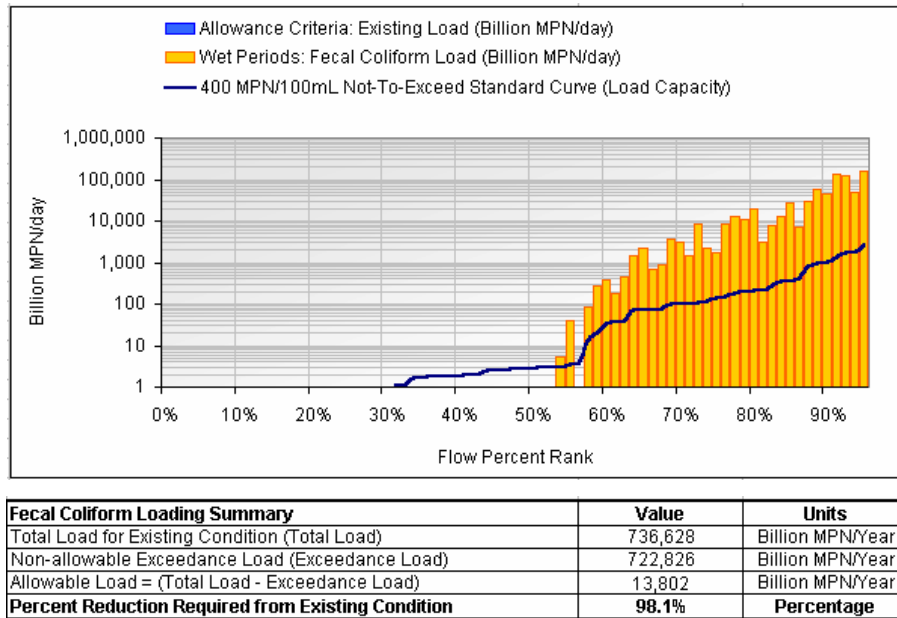


Table P-47. Total coliform load duration curve and TMDL results for subwatershed 503

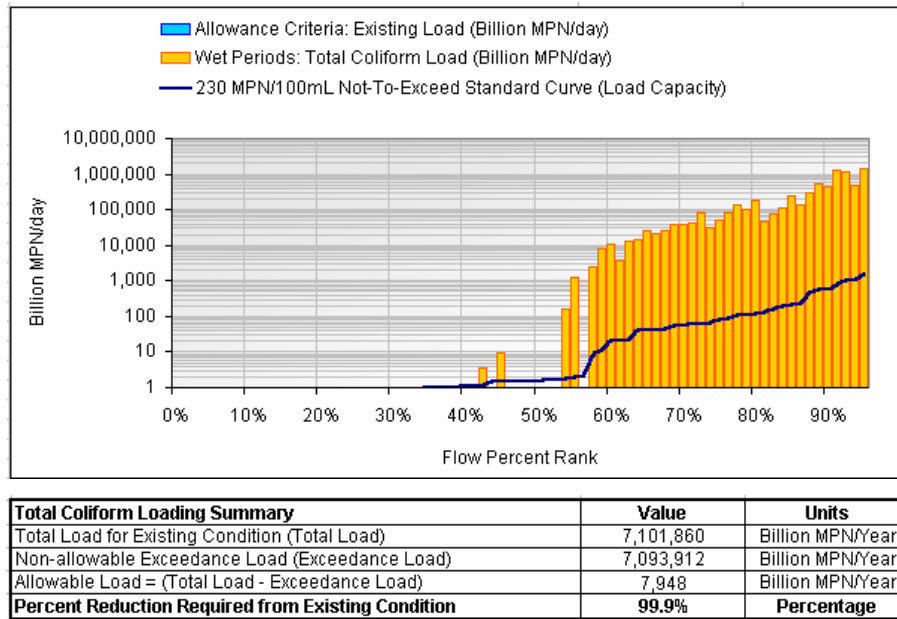


Table P-48. Enterococcus load duration curve and TMDL results for subwatershed 503

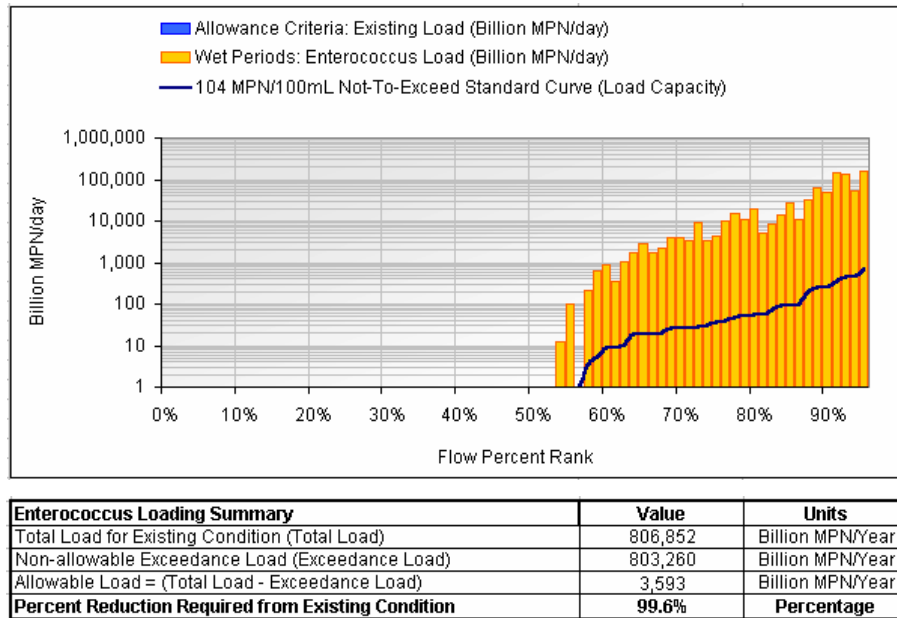


Table P-49. Fecal coliform load duration curve and TMDL results for subwatershed 504

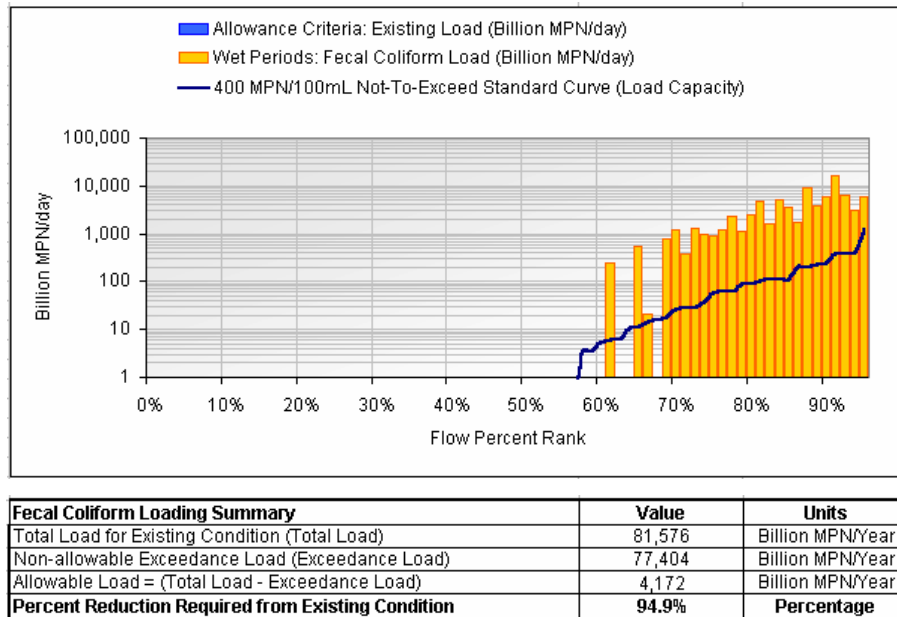


Table P-50. Total coliform load duration curve and TMDL results for subwatershed 504

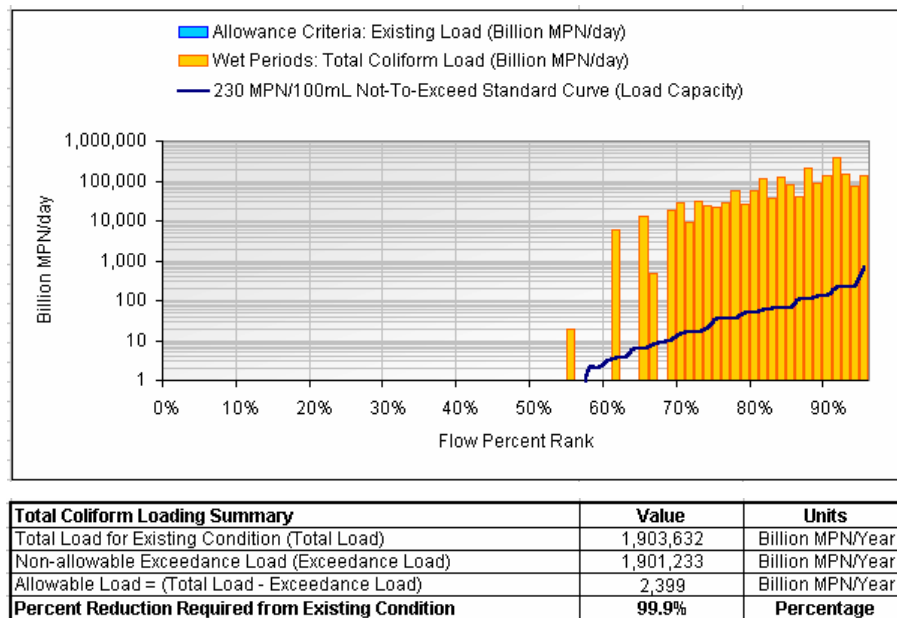


Table P-51. *Enterococcus* load duration curve and TMDL results for subwatershed 504

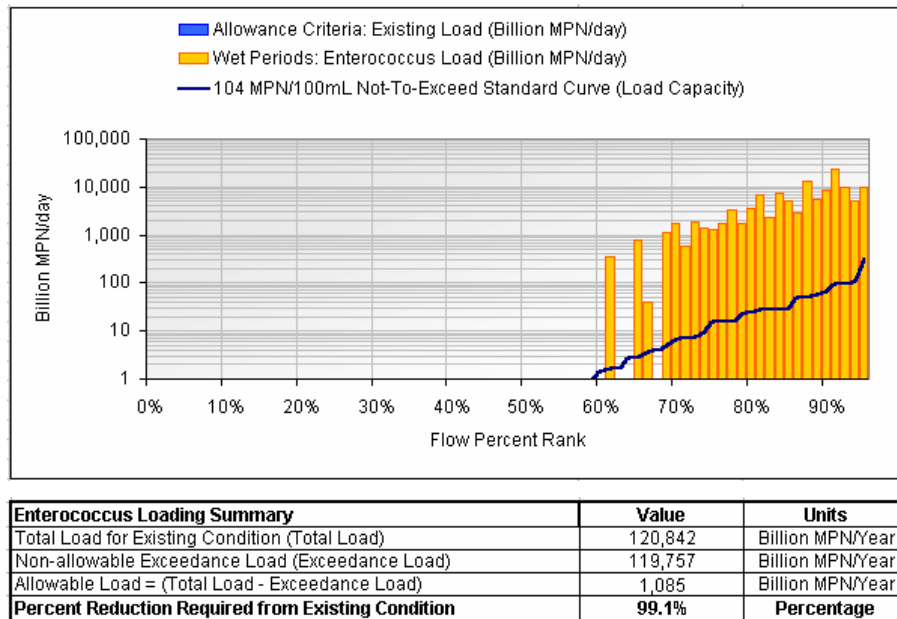


Table P-52. *Fecal coliform* load duration curve and TMDL results for subwatershed 505

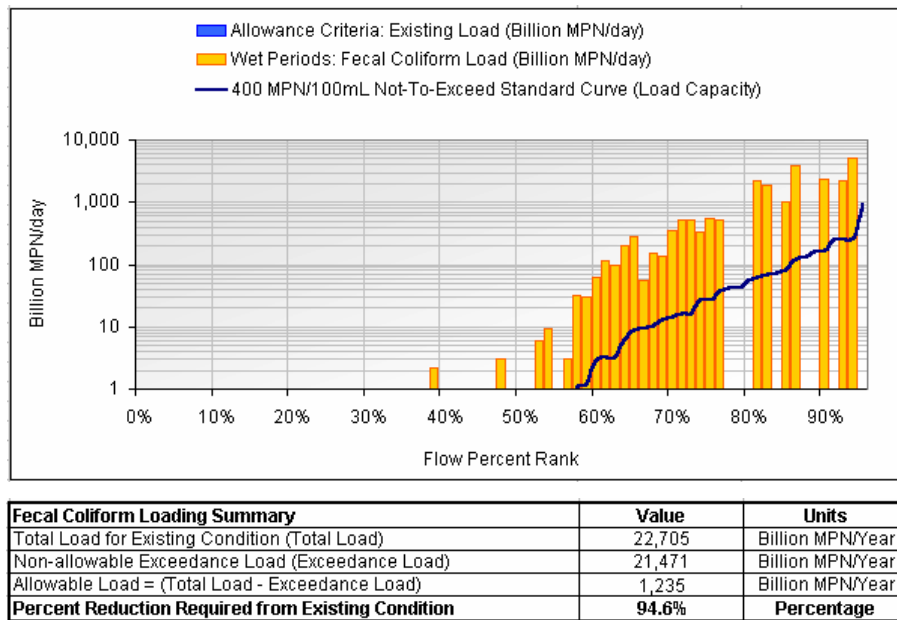


Table P-53. Total coliform load duration curve and TMDL results for subwatershed 505

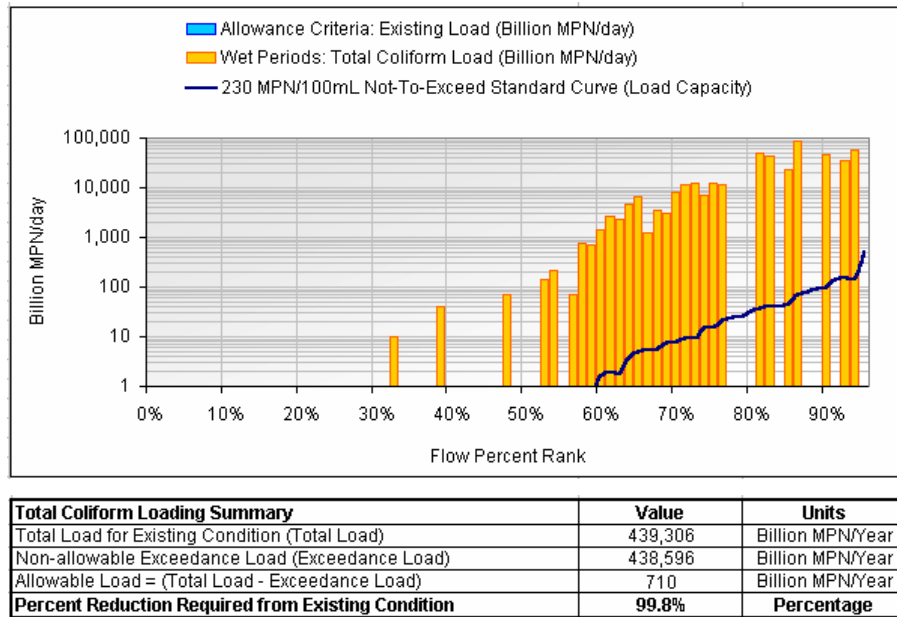


Table P-54. Enterococcus load duration curve and TMDL results for subwatershed 505

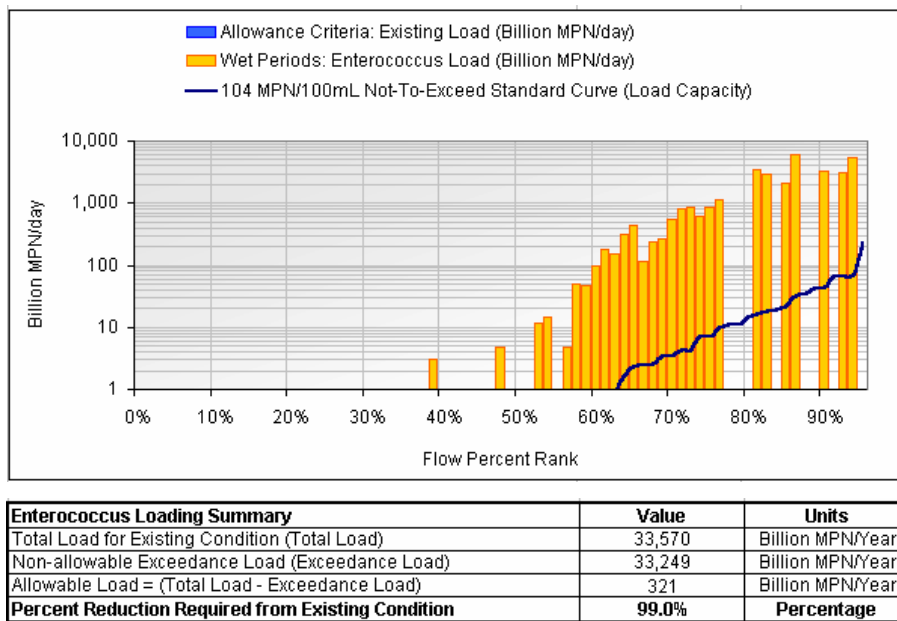


Table P-55. Fecal coliform load duration curve and TMDL results for subwatershed 506

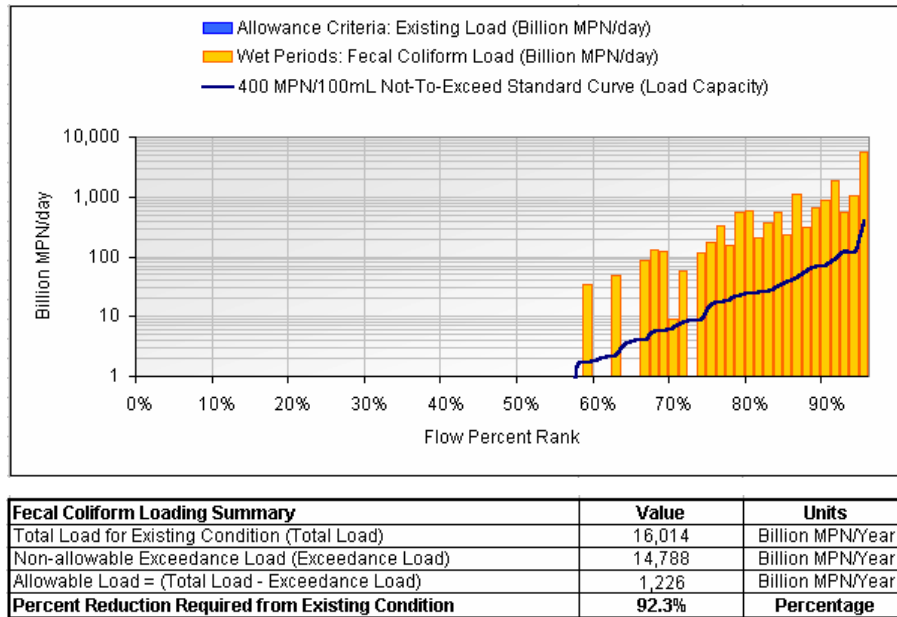


Table P-56. Total coliform load duration curve and TMDL results for subwatershed 506

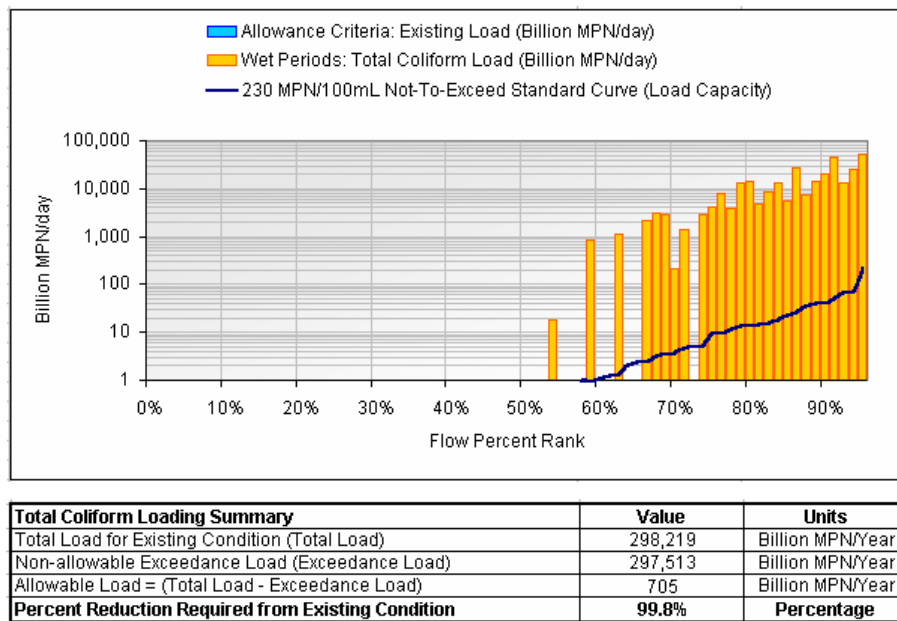
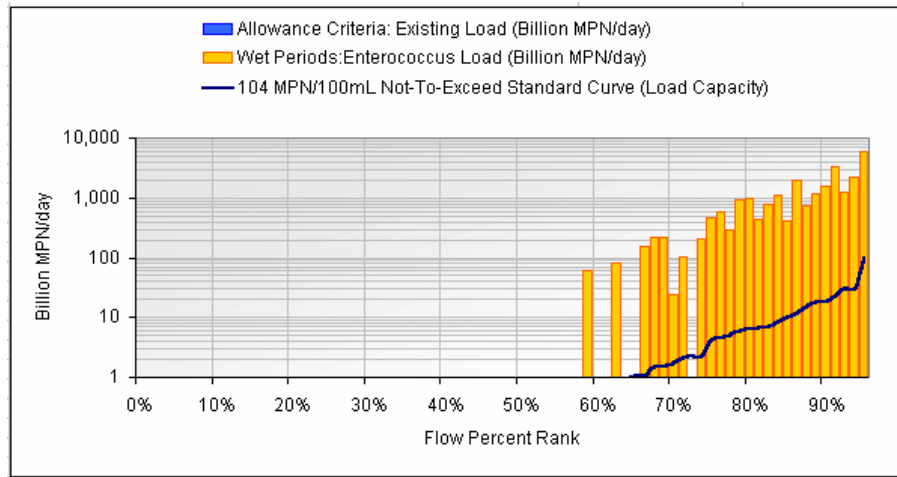
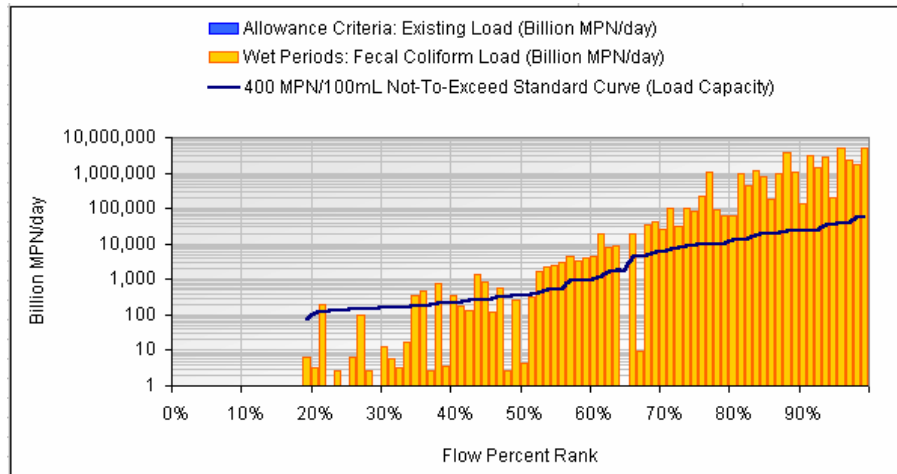


Table P-57. *Enterococcus* load duration curve and TMDL results for subwatershed 506



| Enterococcus Loading Summary | Value | Units |
|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | 25,580 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 25,262 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 319 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 98.8% | Percentage |

Table P-58. *Fecal coliform* load duration curve and TMDL results for subwatershed 701



| Fecal Coliform Loading Summary | Value | Units |
|--|------------|------------------|
| Total Load for Existing Condition (Total Load) | 33,120,012 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 32,478,189 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 641,823 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 98.1% | Percentage |

Table P-59. Total coliform load duration curve and TMDL results for subwatershed 701

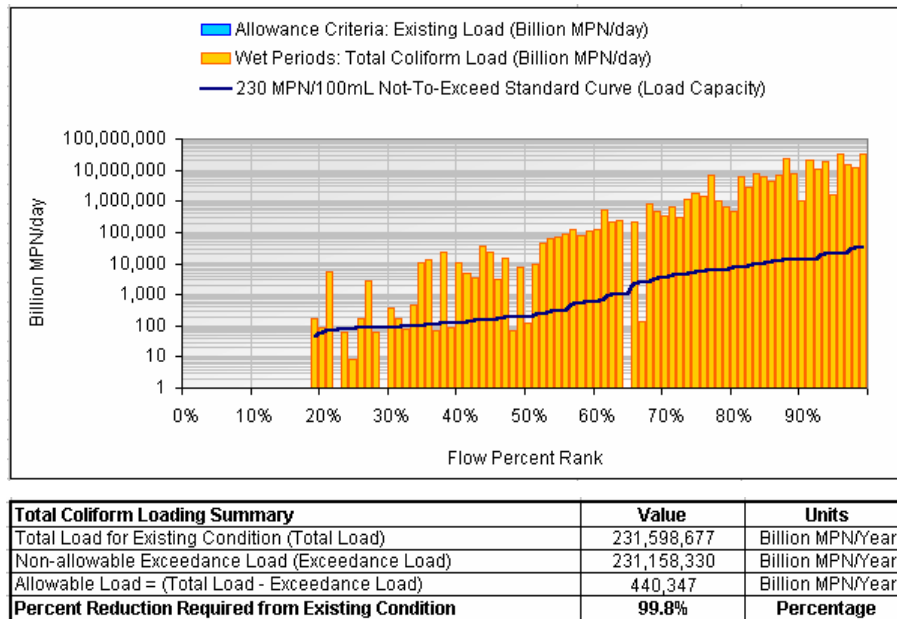


Table P-60. Enterococcus load duration curve and TMDL results for subwatershed 701

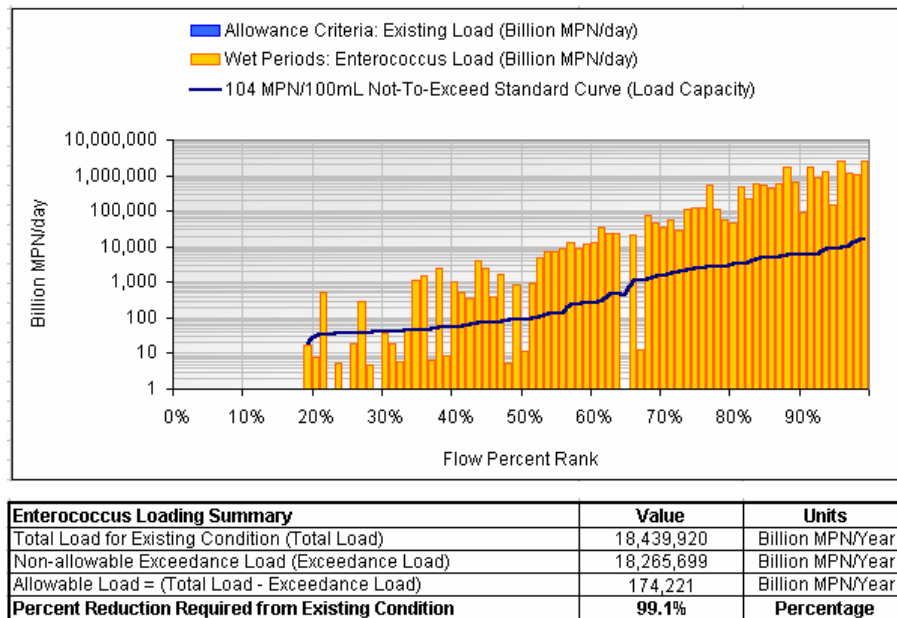


Table P-61. Fecal coliform load duration curve and TMDL results for subwatershed 1101

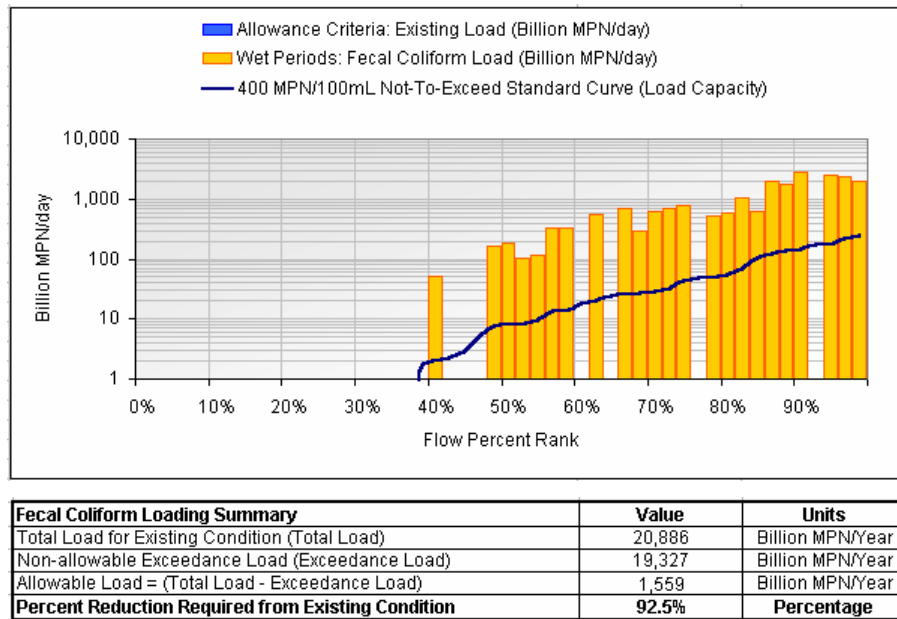


Table P-62. Total coliform load duration curve and TMDL results for subwatershed 1101

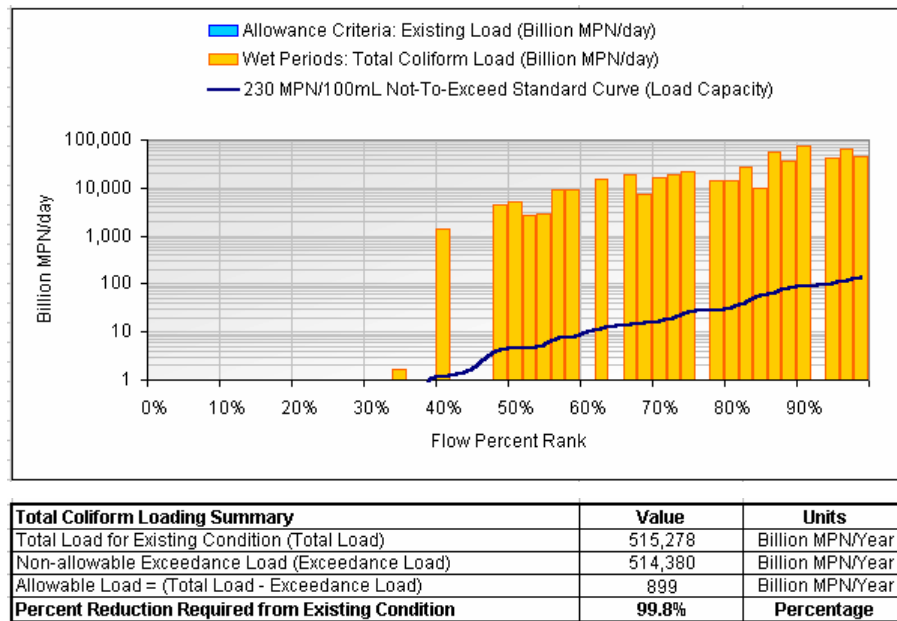


Table P-63. *Enterococcus* load duration curve and TMDL results for subwatershed 1101

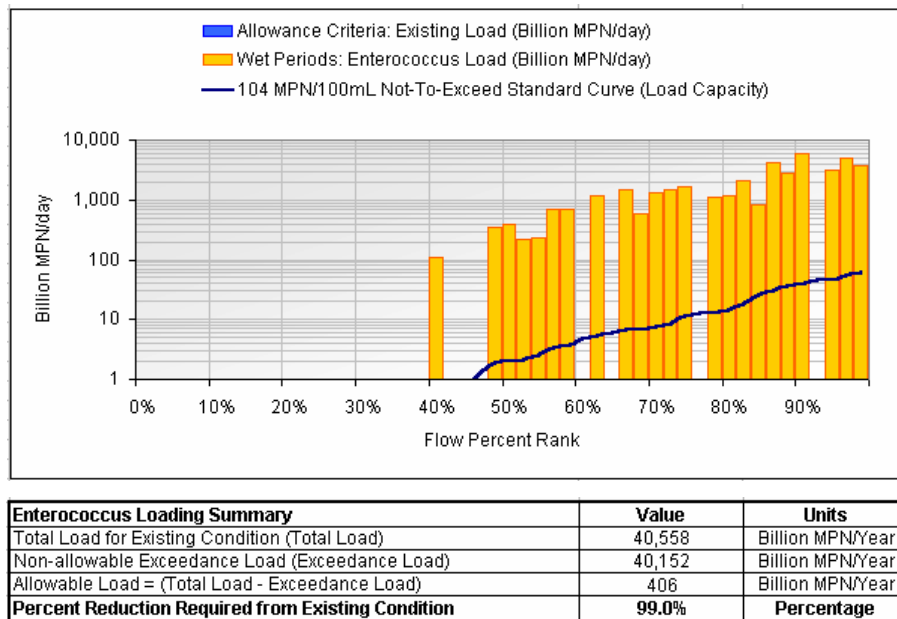


Table P-64. *Fecal coliform* load duration curve and TMDL results for subwatershed 1301

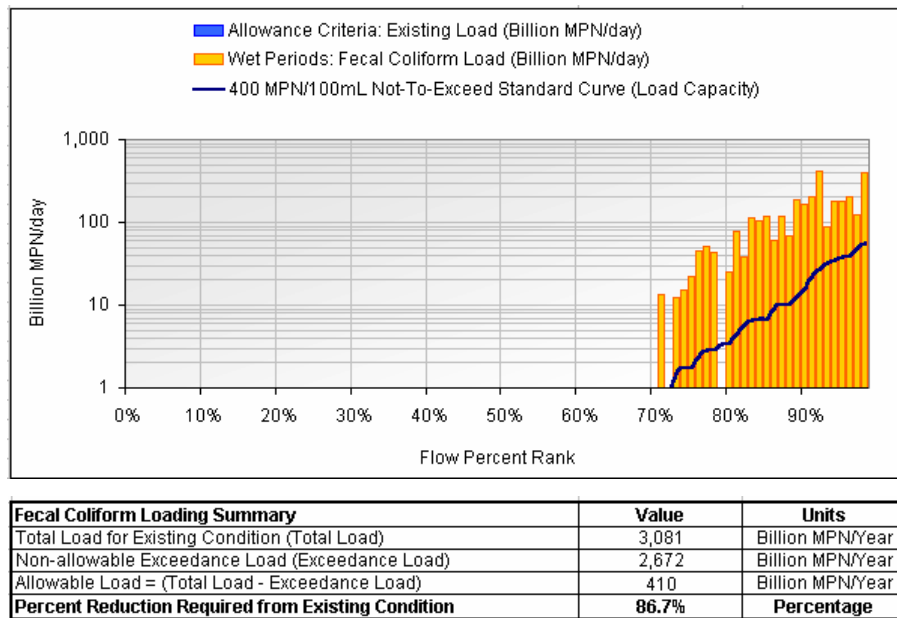


Table P-65. Total coliform load duration curve and TMDL results for subwatershed 1301

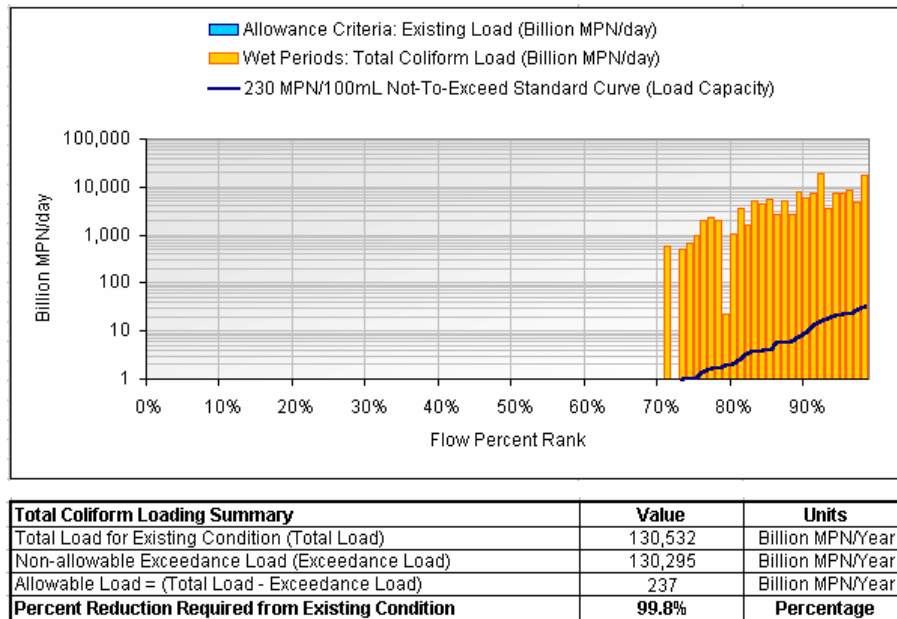


Table P-66. Enterococcus load duration curve and TMDL results for subwatershed 1301

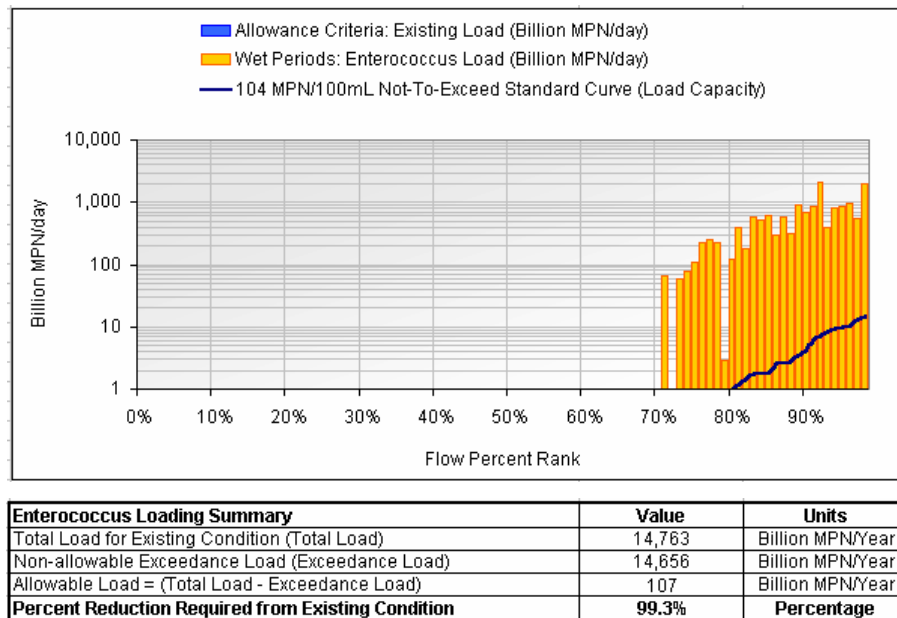


Table P-67. Fecal coliform load duration curve and TMDL results for subwatershed 1302

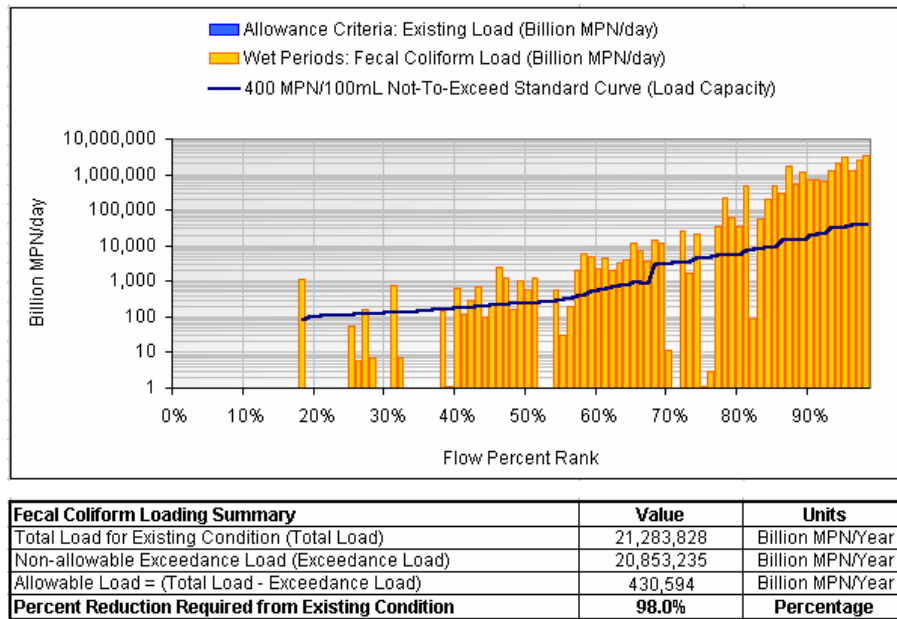


Table P-68. Total coliform load duration curve and TMDL results for subwatershed 1302

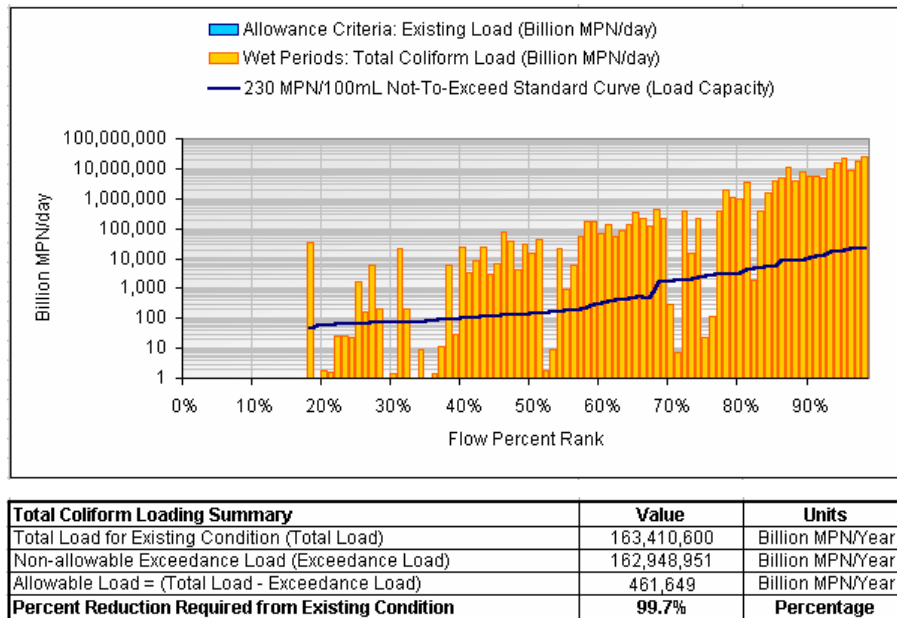
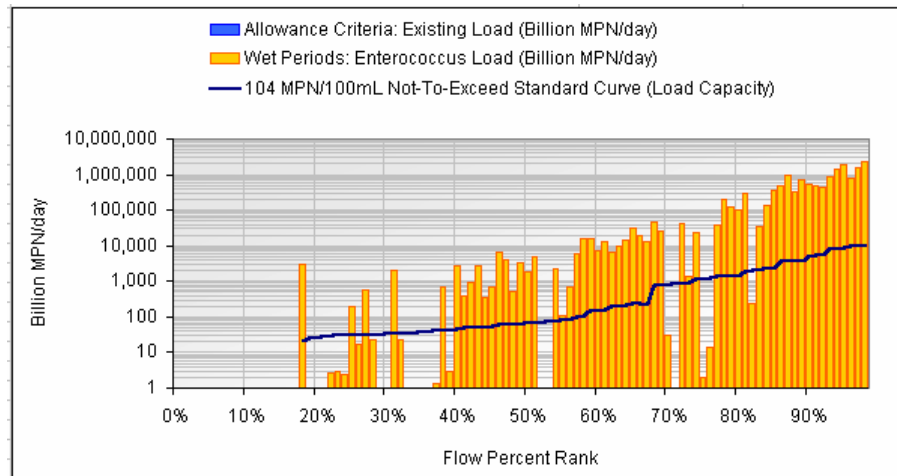
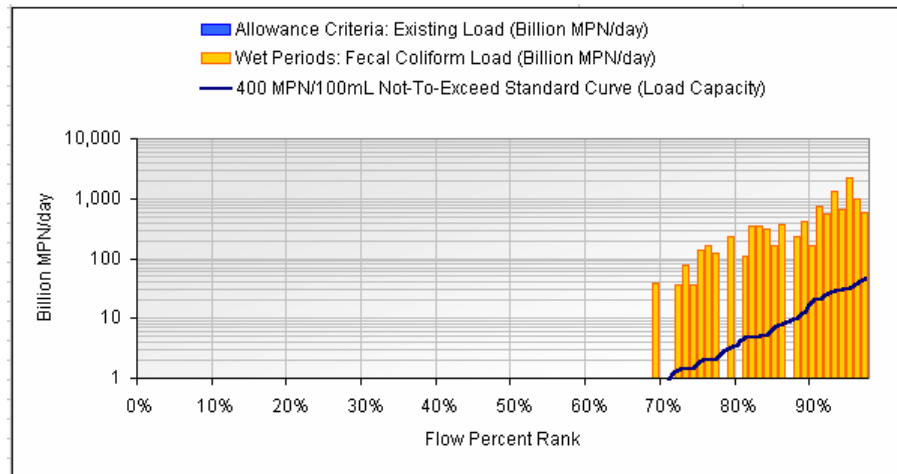


Table P-69. *Enterococcus* load duration curve and TMDL results for subwatershed 1302



| Enterococcus Loading Summary | Value | Units |
|--|------------|------------------|
| Total Load for Existing Condition (Total Load) | 14,781,447 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 14,648,024 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 133,423 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.1% | Percentage |

Table P-70. *Fecal coliform* load duration curve and TMDL results for subwatershed 1401



| Fecal Coliform Loading Summary | Value | Units |
|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | 10,392 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 10,079 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 312 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 97.0% | Percentage |

Table P-71. Total coliform load duration curve and TMDL results for subwatershed 1401

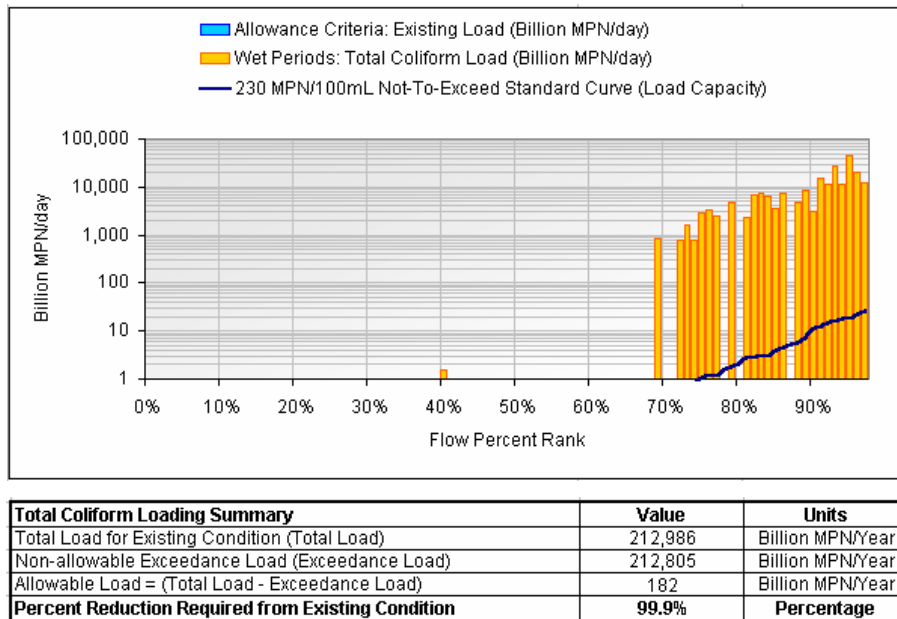


Table P-72. Enterococcus load duration curve and TMDL results for subwatershed 1401

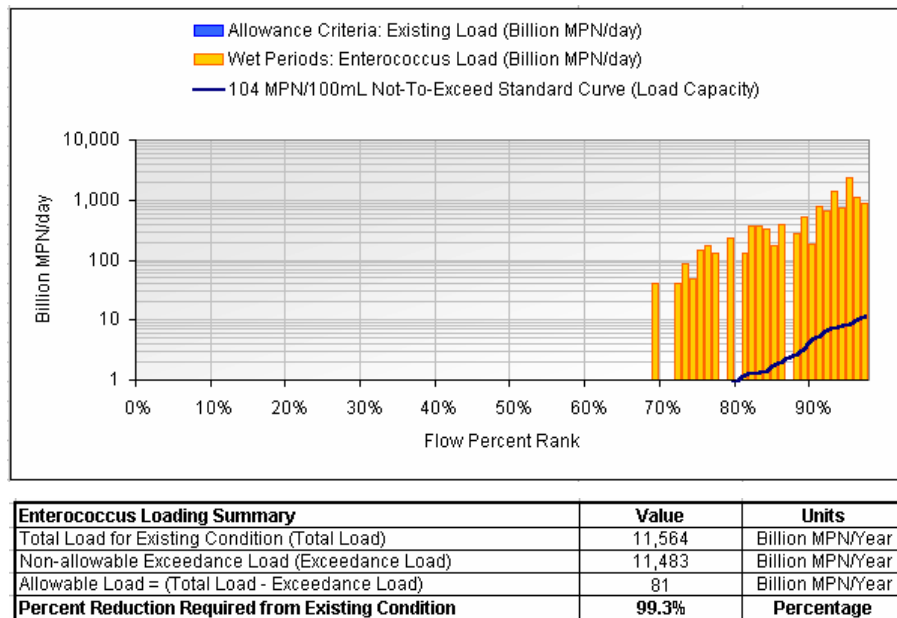
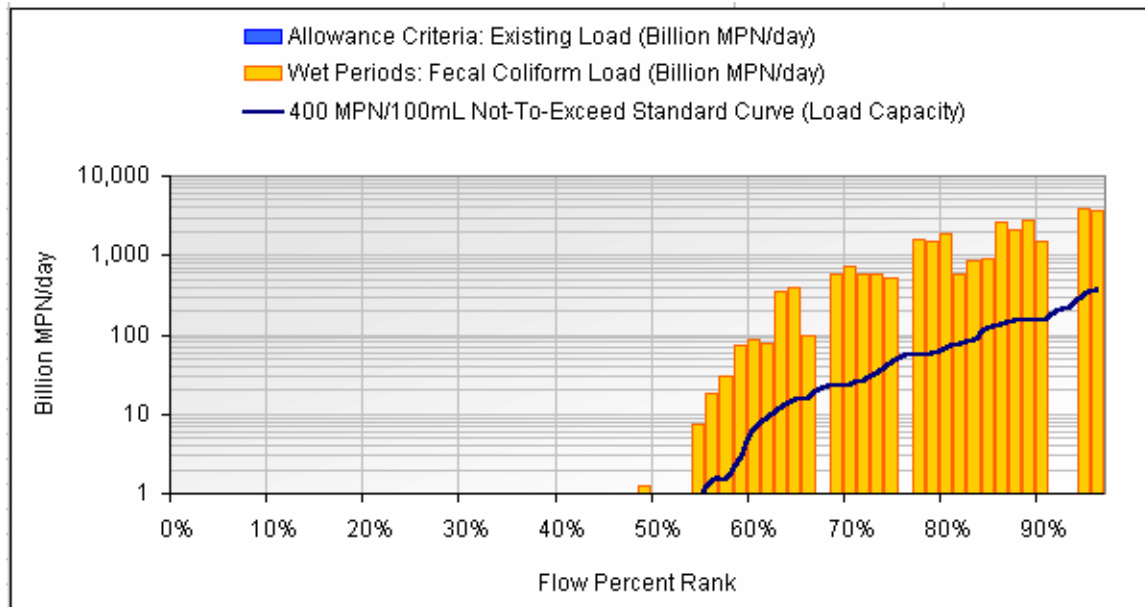
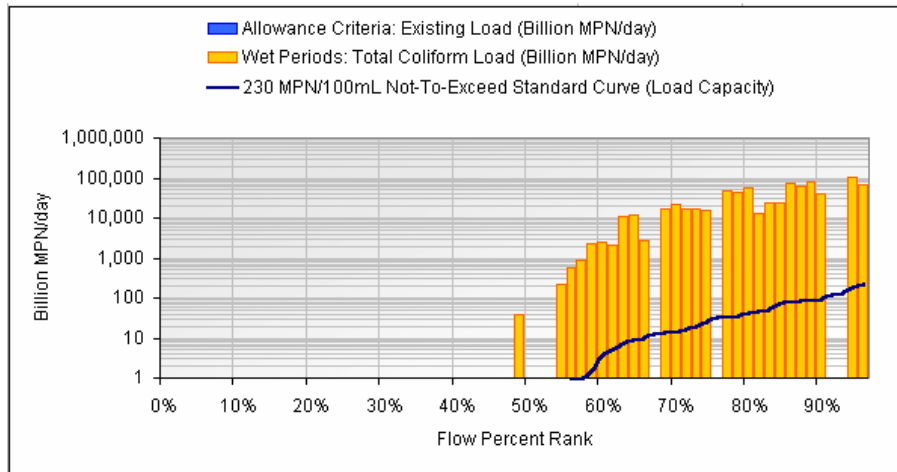


Table P-73. Fecal coliform load duration curve and TMDL results for subwatershed 1501



| Fecal Coliform Loading Summary | Value | Units |
|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | 28,044 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 26,061 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 1,983 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 92.9% | Percentage |

Table P-74. Total coliform load duration curve and TMDL results for subwatershed 1501



| Total Coliform Loading Summary | Value | Units |
|--|---------|------------------|
| Total Load for Existing Condition (Total Load) | 768,912 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 767,772 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 1,140 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.9% | Percentage |

Table P-75. *Enterococcus* load duration curve and TMDL results for subwatershed 1501

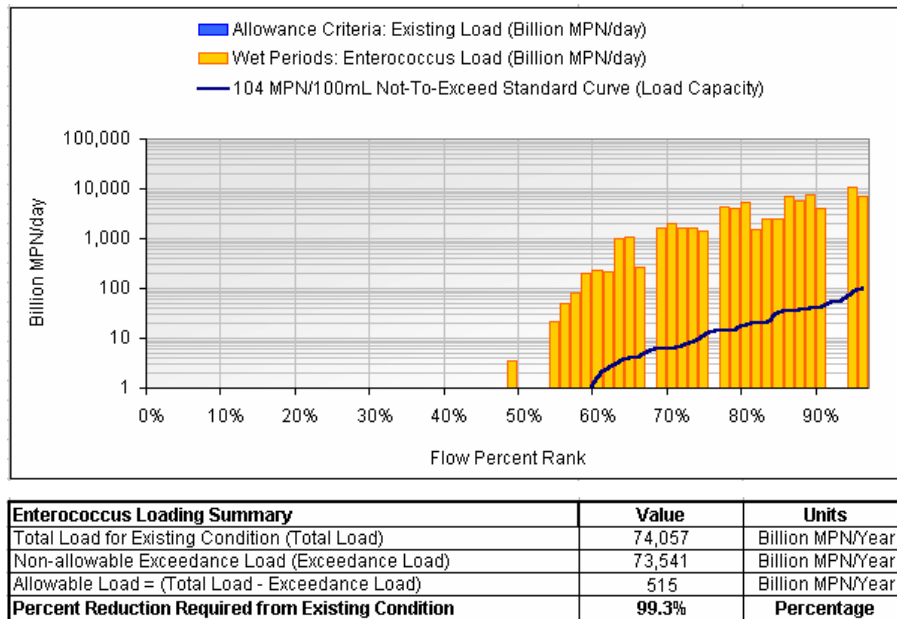


Table P-76. *Fecal coliform* load duration curve and TMDL results for subwatershed 1503

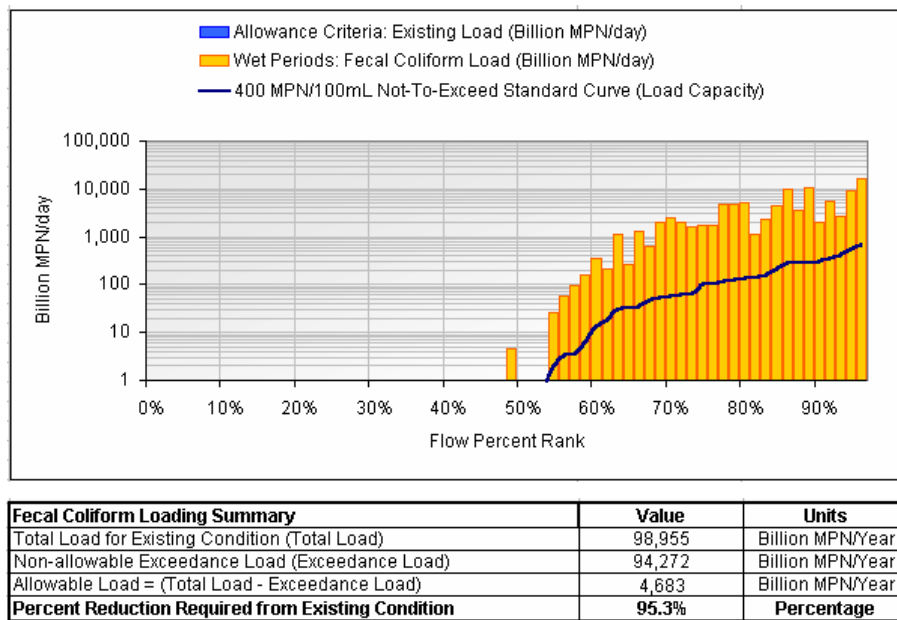
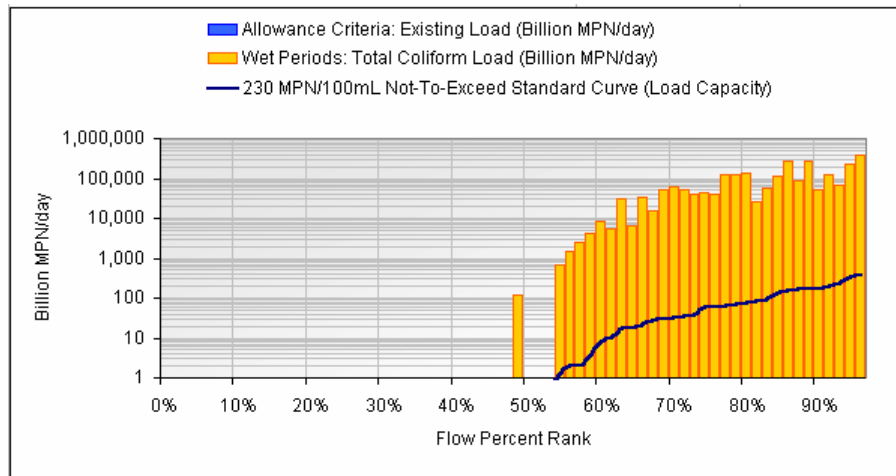
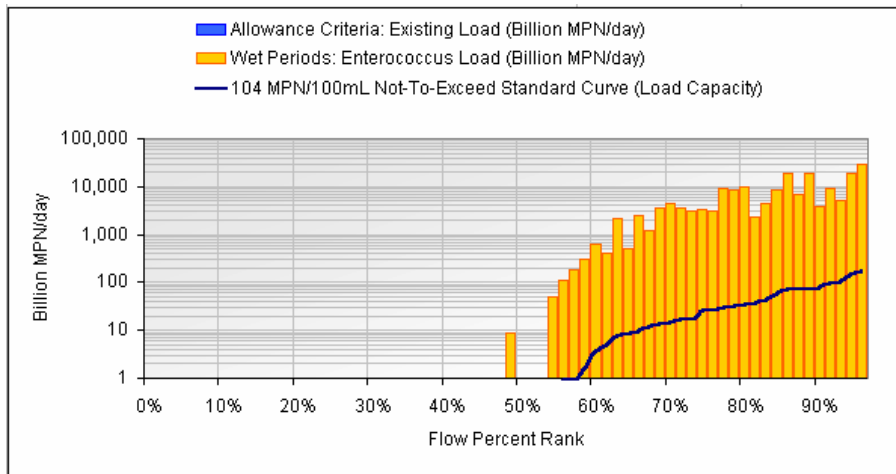


Table P-77. Total coliform load duration curve and TMDL results for subwatershed 1503



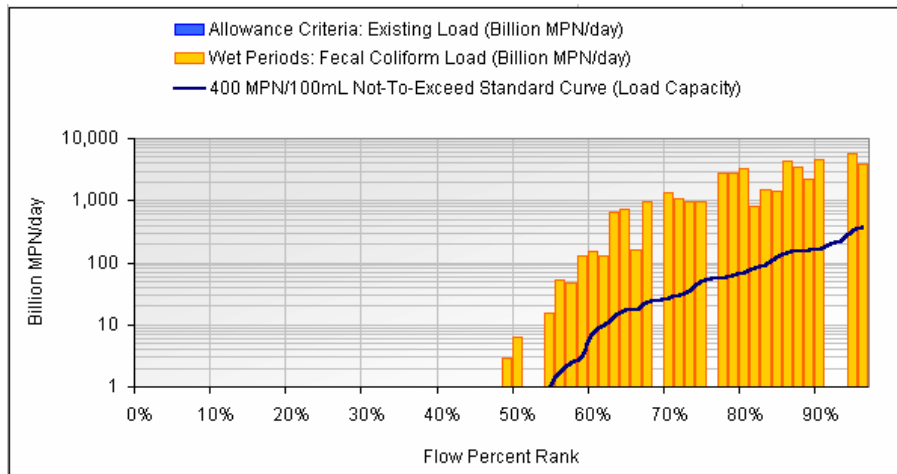
| Total Coliform Loading Summary | Value | Units |
|--|-----------|------------------|
| Total Load for Existing Condition (Total Load) | 2,485,458 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 2,482,765 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 2,693 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.9% | Percentage |

Table P-78. Enterococcus load duration curve and TMDL results for subwatershed 1503



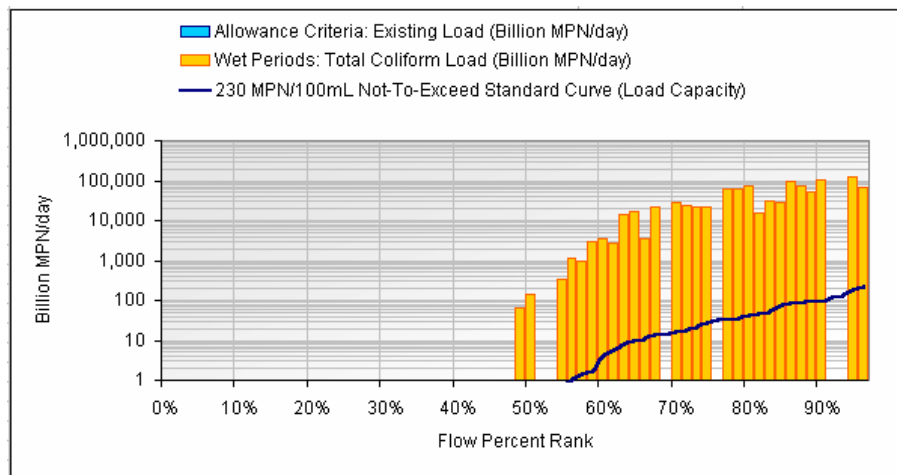
| Enterococcus Loading Summary | Value | Units |
|--|---------|------------------|
| Total Load for Existing Condition (Total Load) | 185,674 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 184,457 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | 1,218 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.3% | Percentage |

Table P-79. Fecal coliform load duration curve and TMDL results for subwatershed 1505



| Fecal Coliform Loading Summary | | Value | Units |
|--|--|--------|------------------|
| Total Load for Existing Condition (Total Load) | | 44,212 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | | 42,190 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | | 2,023 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | | 95.4% | Percentage |

Table P-80. Total coliform load duration curve and TMDL results for subwatershed 1505



| Total Coliform Loading Summary | | Value | Units |
|--|--|---------|------------------|
| Total Load for Existing Condition (Total Load) | | 958,988 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | | 957,825 | Billion MPN/Year |
| Allowable Load = (Total Load - Exceedance Load) | | 1,163 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | | 99.9% | Percentage |

Table P-81. *Enterococcus* load duration curve and TMDL results for subwatershed 1505

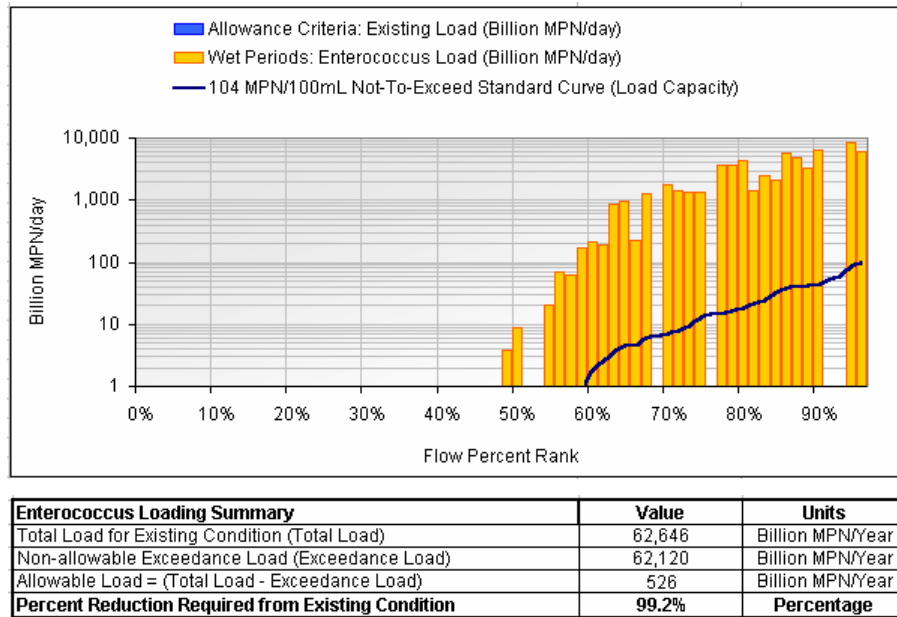


Table P-82. *Fecal coliform* load duration curve and TMDL results for subwatershed 1507

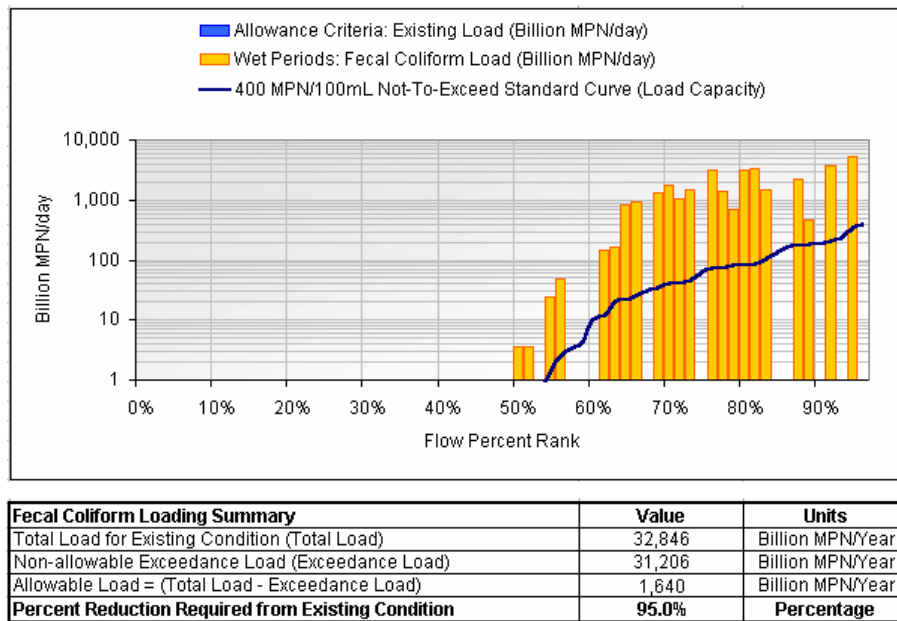


Table P-83. Total coliform load duration curve and TMDL results for subwatershed 1507

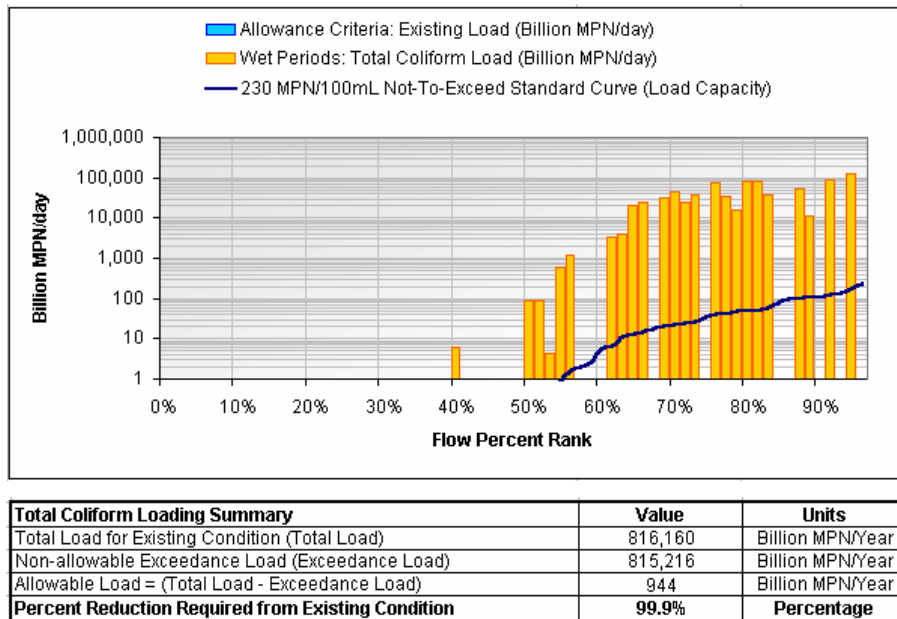


Table P-84. Enterococcus load duration curve and TMDL results for subwatershed 1507

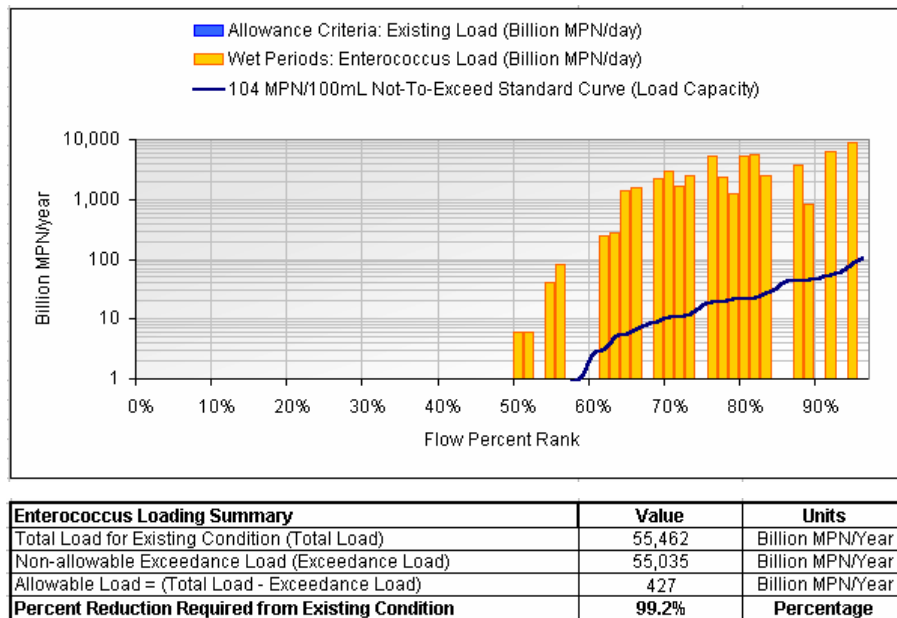


Table P-85. Fecal coliform load duration curve and TMDL results for subwatershed 1801

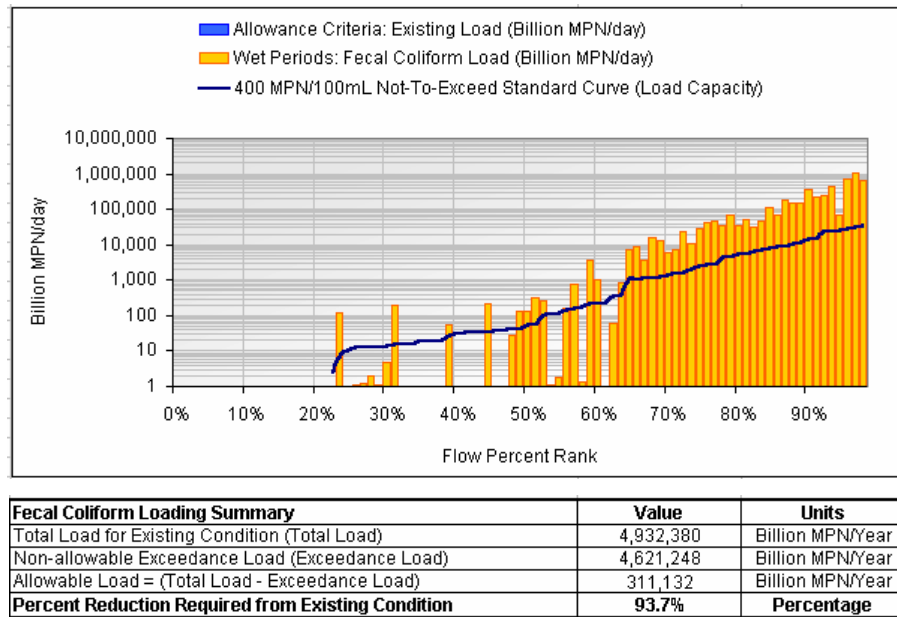


Table P-86. Total coliform load duration curve and TMDL results for subwatershed 1801

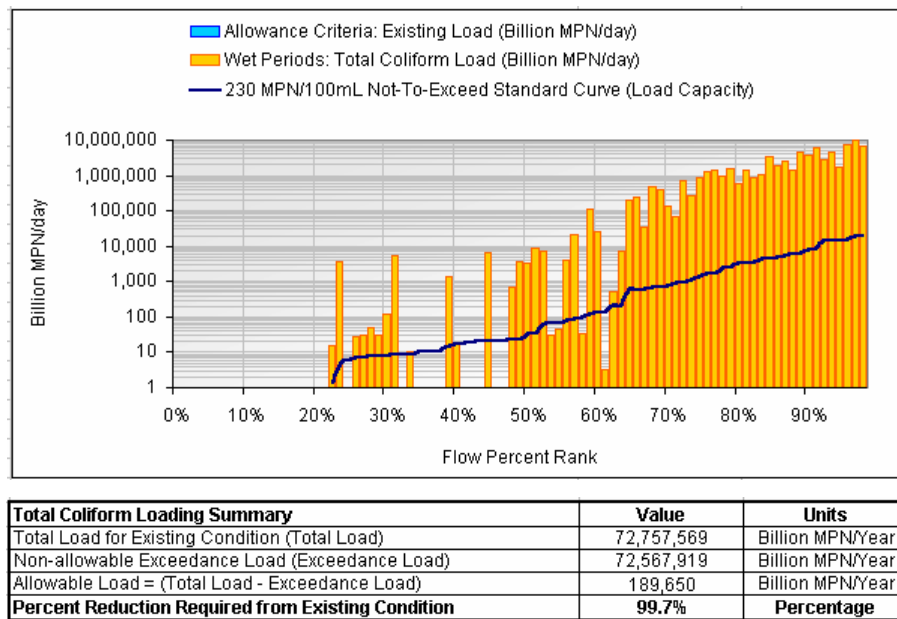


Table P-87. *Enterococcus* load duration curve and TMDL results for subwatershed 1801

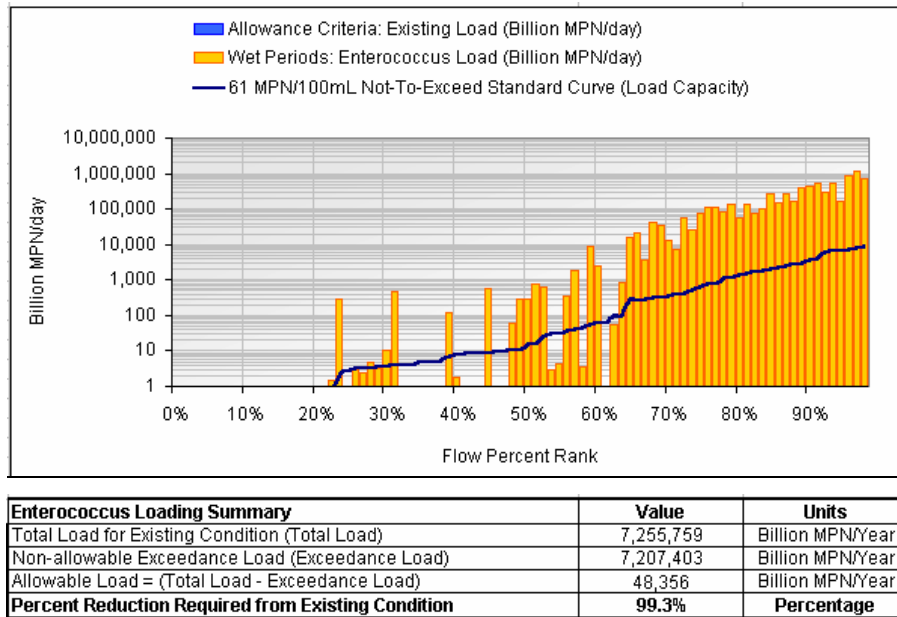


Table P-88. *Fecal coliform* load duration curve and TMDL results for subwatershed 1901

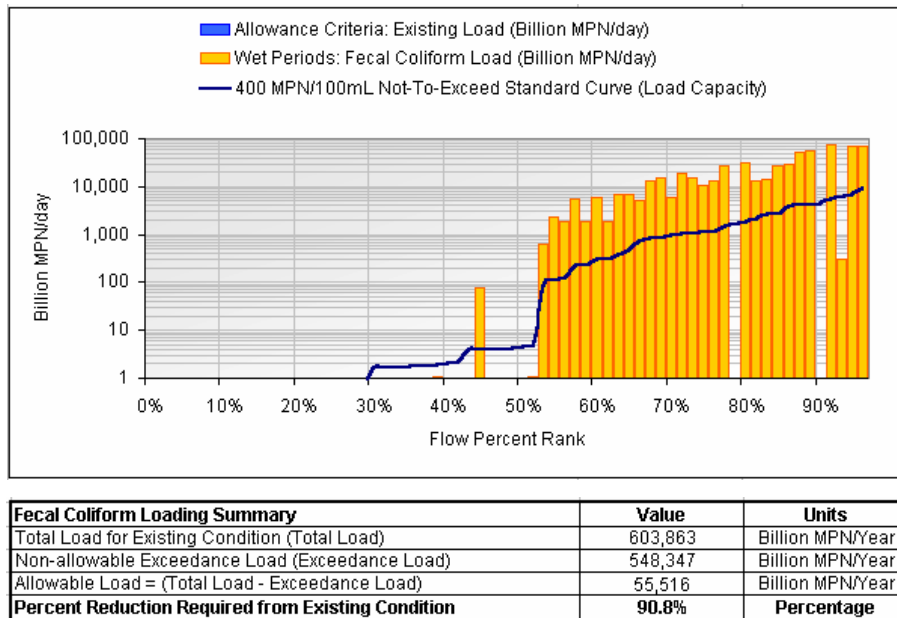


Table P-89. Total coliform load duration curve and TMDL results for subwatershed 1901

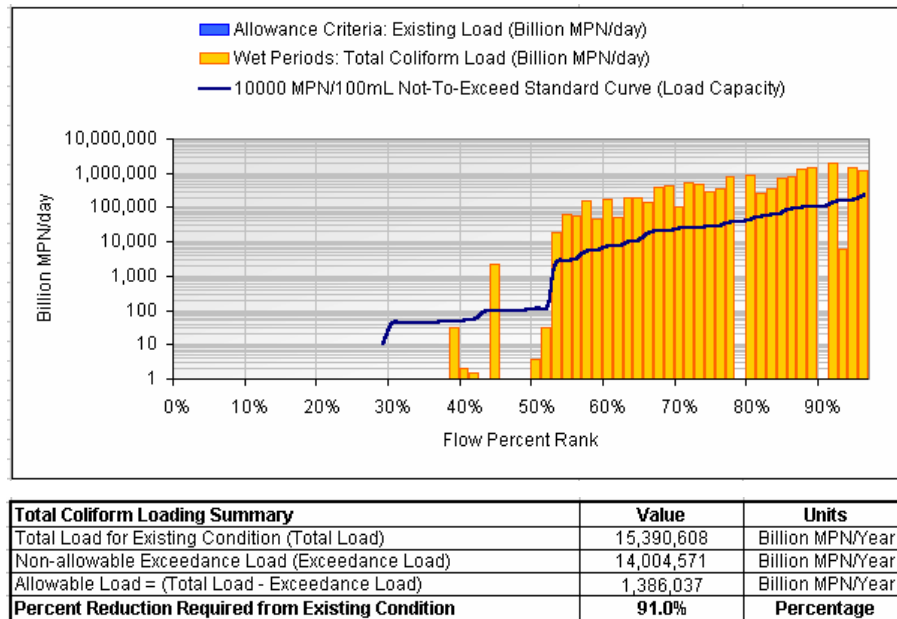
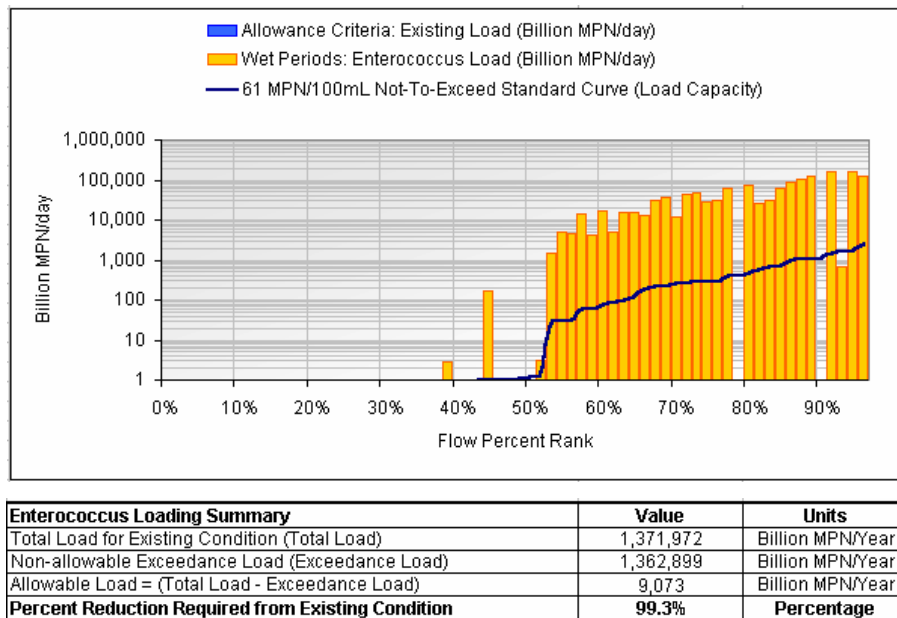
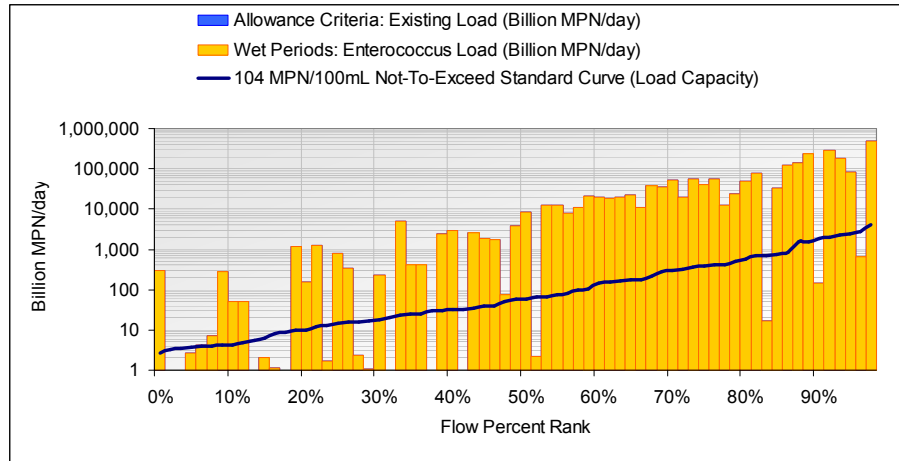


Table P-90. Enterococcus load duration curve and TMDL results for subwatershed 1901



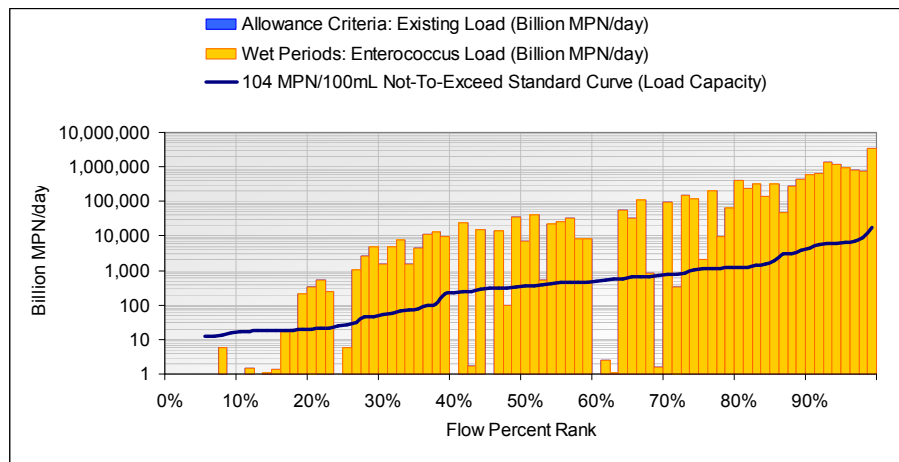
Alternative Enterococcus Load Duration
Curves for Impaired Creeks and
Downstream Beaches

*Table P-91. Alternative enterococcus load duration curve and TMDL results for
subwatershed 202*



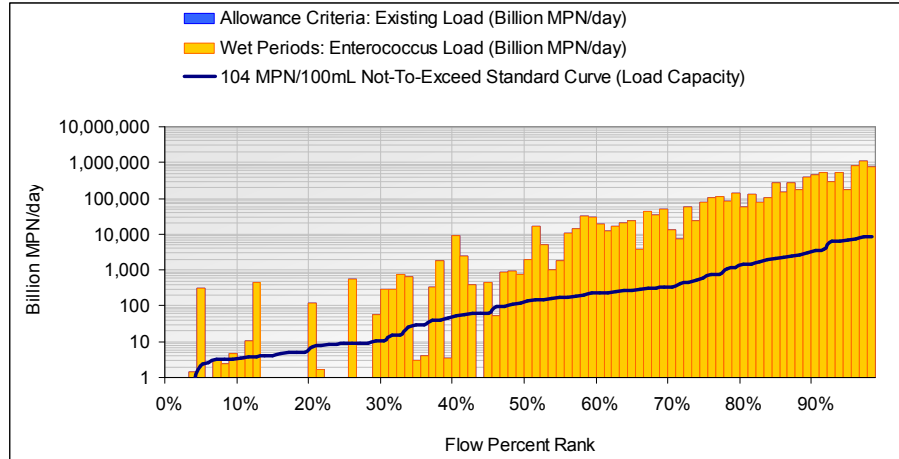
| Enterococcus Loading Summary | Value | Units |
|--|-----------|------------------|
| Total Load for Existing Condition (Total Load) | 2,208,560 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 2,186,024 | Billion MPN/Year |
| Allowable Load = (Total Load – Exceedance Load) | 22,536 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.0% | Percentage |

*Table P-92. Alternative enterococcus load duration curve and TMDL results for
subwatershed 401*



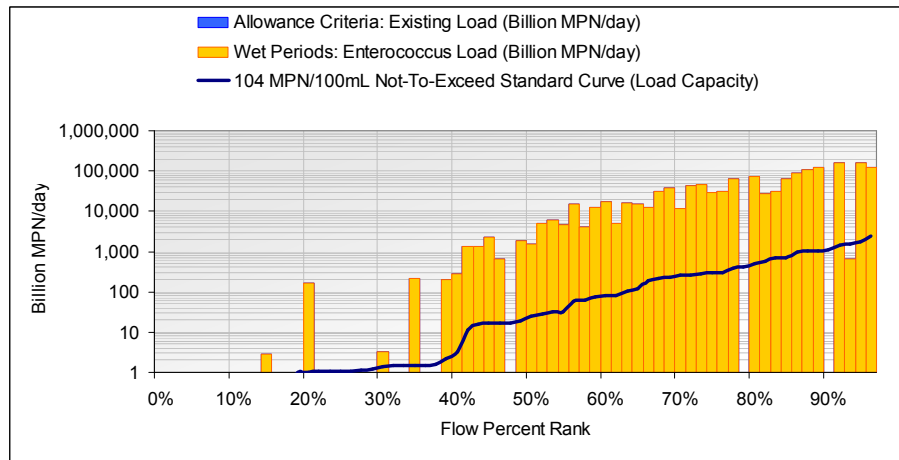
| Enterococcus Loading Summary | Value | Units |
|--|------------|------------------|
| Total Load for Existing Condition (Total Load) | 12,980,098 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 12,884,741 | Billion MPN/Year |
| Allowable Load = (Total Load – Exceedance Load) | 95,357 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 99.3% | Percentage |

Table P-93. Alternative enterococcus load duration curve and TMDL results for subwatershed 1801



| Enterococcus Loading Summary | Value | Units |
|--|-----------|------------------|
| Total Load for Existing Condition (Total Load) | 7,255,759 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 7,173,995 | Billion MPN/Year |
| Allowable Load = (Total Load – Exceedance Load) | 81,764 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 98.9% | Percentage |

Table P-94. Alternative enterococcus load duration curve and TMDL results for subwatershed 1901



| Enterococcus Loading Summary | Value | Units |
|--|-----------|------------------|
| Total Load for Existing Condition (Total Load) | 1,371,972 | Billion MPN/Year |
| Non-allowable Exceedance Load (Exceedance Load) | 1,356,964 | Billion MPN/Year |
| Allowable Load = (Total Load – Exceedance Load) | 15,008 | Billion MPN/Year |
| Percent Reduction Required from Existing Condition | 98.9% | Percentage |